JUN 19 1918

Virginia Medical Monthly

Published Middle of Each Month

Issued as Virginia Medical Semi-Monthly, April, 1896—December, 1917

Established April, 1874, By Landon B. Edwards, M. D

OFFICIAL ORGAN OF THE MEDICAL SOCIETY OF VIRGINIA

Forty-Ninth Annual Session, Richmond, October 22-25, 1918

VOL. 45, NO. 3
WHOLE NO. 792

RICHMOND, VA., JUNE, 1918

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CHARLES M. EDWARDS, M. D., Managing Editor
Richmond, Va.

Published with the collaboration of the Publication Committee of the Medical Society of Virginia

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Original Communications.

CARCINOMA OF THE BREAST; SOME POINTS IN OPERATIVE TECHNIQUE.*

By J. W. HENSON, M. D., F. A. C. S., Richmond, Va.

Associate Professor of Surgery, Medical College of Virginia; Surgeon to Virginia and Memorial Hospitals.

Until we are better informed about carcinoma, particularly its etiology, the hope of its victims must lie in early diagnosis and immediate radical operation, when possible. The victims of carcinoma of the breast are often condemned to years of inconvenience and sometimes suffering by the radical nature of the operation. Therefore, when undertaking surgical measures for relief of carcinoma of the breast, I hold that the surgeon should have in mind two ideas, viz., to make the operation efficient and at the same time provide for the subsequent comfort of the patient as far as possible.

The principles to be observed in putting into effect the first idea are: 1st, to remove over a sufficiently wide area all structures (including deep fascia) that bear lymphatic vessels or glands. The removal or retention of the pectoral muscles I will discuss later in connection with the question of providing for the subsequent comfort of the patient. Following the teaching of Handley, I believe that (with the exception of the very early cases), the deep fascia should be removed as far internally as the sternal border of the opposite pectoralis major, below over the upper part of the abdominal muscles of the same side and posteriorly beyond the outer border of the latissimus dorsi. 2nd, that the breast should be handled as little as possible during the operation. In this connection, I will state that I believe, in the view of Willy Meyer, that the axilla should be cleaned before attacking the breast and adjacent structures to be removed. 3rd, that all dissecting, as far as possible, should be done with the knife, using scissors only occasionally, and using the finger or gauze never, when possible to avoid it, because of the greater risk of spreading cancer cells. 4th, that the axilla should be cleaned by the extra fascial method of dissection, thus minimizing the handling of the fat, cellular tissue, lymphatics and glands in this space. The execution of this plan aids materially in carrying out the principle of sharp dissection.

Before beginning the dissection of the axilla above, I approach the subscapular artery from below beneath the deep fascia, locate and expose the greater part of this vessel with its accompanying veins and the long subscapular nerve. I suggest this as a method to facilitate the extra fascial dissection.

The principle to be observed in providing, at the time of operation, for the subsequent comfort of the patient, is to cover the axillary vessels and brachial plexus with some structure which will prevent or minimize the formation of scar tissue and consequent pressure on the axillary vein and the nerves—the pressure which produces the persistent œdema of the arm and forearm and nagging neuralgic pains.

Our observation of and experience with these cases ought to be sufficient to have us keyed to the proper appreciation of the gravity of the situation. Experience is the best teacher, but sometimes the forceful expression of the ex-

*Read before the forty-eighth annual meeting of the Medical Society of Virginia, at Roanoke, October 30-November 2, 1917.

perience and observation of others gives us a firmer hold on our views and makes us feel more keenly our responsibility. The idea that something ought to be done to prevent scar tissue pressure in the axilla following breast operation was crystallized into a determination to make some effort along this line when I learned of the facts and statistics given by Greenough in a paper read before the American Surgical Association in 1907. He made an analysis of the cases operated upon for carcinoma of the breast at the Massachusetts General Hospital over a period of ten years, from 1894 to 1904. He covered the states adjacent to Massachusetts by written communications and interviews with doctors and patients. He demonstrated that over 30 per cent. of these cases had œdema of the arm and forearm after the operation. As there can be no fat or fascia retained in these operations, we must either use an adjacent muscle or transplant fat or fascia from elsewhere to cover the axillary vein and brachial plexus.

I believe it is feasible to raise a flap from the sub-scapularis muscle, turn it outward over the vessels and nerves and stitch it to the tendon of the pectoralis major and adjacent fascia, but this will weaken another muscle of the upper extremity where two have already been sacrificed. Recently I have been retaining the pectoralis major muscle for this purpose. The muscle is divided early in the operation near its outer attachment, just internal to the course of the vessels and when all dissecting is completed it is stitched to its tendon and the adjacent fascia with mattress sutures so placed as to turn the cut edges backward against and to the inner side of the vessels. Retention of the pectoral muscle is, of course, not to be considered if, when examining a patient, there is any doubt as to the tumor being freely movable over the underlying muscle.

The strongest incentive I have for retaining and using the pectoralis major is that Bryant, of London, reported that over a period of forty years he had seen recurrence of carcinoma in the pectoral muscle in only one case. Murphy reported two years before his death that he had never seen a case of recurrence in the pectoral muscle. Murphy used both pectoral muscles for protecting the axilla, but severed them at their costal attachment and turned them back into the axilla, holding them with a few stitches. There are two objections to this plan: 1st, by severing these muscles at their costal attachment I do not believe one can make a block dissection beginning with the axilla; certainly Murphy did not, according to the description of his operation in "Murphy's Clinics;" 2nd, the function of the muscles is sacrificed.

A sketch of the technique in the operation for carcinoma of the breast may at least emphasize some of the details of extra fascial dissection of the axilla. I sometimes use the Meyer incision but oftener that of Jackson. Any one of the standard incisions may be used, provided the operator extends it far enough outward on the arm to get a good exposure of the pectoralis major and the axilla, and sufficiently far below to reach the amount of deep fascia to be sacrificed over the lower thoracic and upper abdominal walls; and, further, provided that the part of the incision that encircles the tumor should be 2½ inches (preferably 3 inches) from the border of the mass at its nearest point. The outer skin flap is dissected back well beyond the border of the latissimus dorsi. Make an incision through the deep fascia on the dorsal surface of this muscle, parallel to and 1½ inches or more from its outer border and reaching from its tendon to the angle of the scapula. By sharp dissection, free this fascia from the outer border and anterior surface of the latissimus dorsi and from the outer border of the subscapularis, until the subscapular vessels and the accompanying long subscapular nerve are exposed and cleared for the greater part of their course. Put a hot saline towel underneath this fascial flap. Now undermine the inner skin flap just enough to expose the outer part of the pectoralis major up to the clavicle. Put a hot saline towel under this flap. Divide the pectoralis major just internal to the course of the axillary vessels, free it from the clavicle and turn it inward with the towel between it and the skin flap.

The fascia over the coraco-brachialis is continuous with the clavi-pectoral fascia which encloses the pectoralis minor. Make an incision in this fascia external to the axillary vessels over the line of the coraco-brachialis and extending from the lower border of the axilla on up through the tendon of the pectoralis minor and the costo-coracoid membrane to the clavicle. Dissect this fascial flap with the pectoralis minor inward, clearing the axillary ves-

sels and the brachial plexus, tying and cutting the smaller branches after clamping them distally. As the axillary vessels and brachial plexus are now cleaned and as the subscapular vessels and the long subscapular nerve have been freed, the extra fascial dissection of the axilla is continued by getting under the subscapular fascia and dissecting it inward, carrying everything with it.

Upon reaching the serratus magnus muscle, continue the dissection by clearing its fascia and the pectoralis minor from the thoracic wall until you reach the pectoralis major, being careful not to injure the long thoracic nerve. Now free the fascia from the posterior surface of the pectoralis major, beginning at its upper border. After reaching and clearing the lower border of the muscle, cover the axilla and shoulder with hot saline towels and turn the pectoralis major outward. Now rapidly undermine the inner skin flap and the lower part of the outer flap to the extent needed. Then, while an assistant holds the pectoralis major on tension, rapidly dissect, from above downward, the fascia from its anterior surface and the sternum, thus freeing the tumor mass except where it is still attached to the fascia over the lower part of the anterior thoracic wall. Continue the dissection until this fascia is freed as far as indicated by the nature of the case and sever it. After the necessary ligatures for controlling bleeding are tied, the pectoralis major muscle is stitched to its tendon and the adjacent fascia with mattress sutures so placed that the cut edges are turned backward against and internal to the vessels.

In conclusion, let me beg that this paper be not considered as exploiting my technique. It was written to discuss and to try to emphasize the value of extra fascial dissection of the axilla and the importance of making some provision in the nature of the operation for the future comfort of the patients. I hold no brief for the use of the pectoral muscle for the latter purpose. I simply believe that something should be done along this line. I may, later, be using a part of the subscapularis muscle, or I may resort to transplanting fascia or fat. I shall at least continue to make provision of some kind for the future of these cases unless I meet with facts that prove the course wrong.

405 *North Allen Avenue.*

DISCUSSION.

Dr. H. E. Jones. Roanoke, Va.—Mr. President, all of us know that the great surgeons of Richmond, Rochester and some of the larger cities in the country have heard what we heard last night in regard to cancer of the breast and so on, and what we have heard today; from that we ought to be pretty well posted on the subject of cancer of the breast. The technique is all we care about; a great many of us are acquainted with that very well, and have some idea of what we can do with it ourselves, frequently. I believe the time will come when the surgeon will not have opportunity to do the radical operations of the breast, provided the public is instructed so that every woman who has a small tumor of the breast will seek aid for the purpose of diagnosis for relief, and it comes under the head of making an early diagnosis.

We were told last night by Dr. Horsley that it was very dangerous, indeed, for us to make an incision and send a sample to the laboratory and wait three, four or five days before the case is operated on. That diagnosis can be made without an operation. There are not many doctors doing it, but it is being done, and all you have to do is to get a sample of the patient's blood and put it on a piece of blotting paper, send it to the laboratory that is doing that kind of work, and as soon as you get it by return mail you can proceed. It is done by the utilization of the different forces of the different tissues; that is, it is called the electrone diagnosis. It has been found out that, for instance, with a tumor, tuberculoma, or one of cancer, each one has a special force; that is, it gives off a force that has a certain way of being indexed, certain vibrio, and they have found out and made delicate instruments to detect these forces and diagnose one from the other; and it can be done without making an incision of the breast or any injury whatever.

Dr. Horsley, Richmond, Va.—Mr. President, I was very much interested in the discussion. I try to keep up with laboratory work in a general way, and the biological treatment of cancer has been unsatisfactory. True, as Dr. Jones said, in some cases we do find reaction in the blood. Dr. Crile some years ago was quite enthusiastic about it. The reactions are very difficult to get. He found, however, that a good many other diseases had somewhat the same reaction, so it wasn't entirely reliable. Biological treatment of cancer has been carried on all over the world. Two methods have been found, one is by producing serum, using the serum; and the other by the vaccine method of attenuating the cancer cells without actually destroying them, and injecting these cells. I think Dr. Weil, of New York, has made the most satisfactory review of these cases, and his articles are quite extensive. He comes to the conclusion that the biological treatment is unsatisfactory, and there is no case of real cure from serum, and but one or two cases of cure and several cases improved from the vaccine. The real reason of that seems to be, it is almost impossible to get specific antibody in case of any particular organ or class of cells. You can manufacture hemolytic serum for special tissue that will act in vitro but not in the body. For instance, you can get serum that will digest the crystalline lens of animals perfectly, but when you put it in the animal there is such a delicate reaction and so much of this is taken up by blood and the other tissues that, before it reaches the crystalline lens, there isn't any left; you would have to use so much of this material to affect the lens that the patient would be killed before the lens was affected. It is the same way with the liver. Dr. Beebe several years ago claimed he had a specific antibody prepared for

the liver or kidney, but no one has been able to do that.

Along the line of technique, all of us who know of Dr. Henson's excellent work will appreciate his dissection. He carries out the real principle of operation for cancer, but I must take issue with him in regard to implantation of the muscle. It isn't usual to have recurrence in muscles, but cases do occur, and the cause is this: the lymphatics run in the fascia between the major and minor muscles and the fascia penetrates these muscles.

The next objection is, it appears to be unnecessary. I do not recall, in a total of about 60 or 70 operations—all of which I have not records of, but I have records of most—a single case of permanent edema of the arm that wasn't accompanied by recurrence. We do some time have transient edema; I do not think that it is due to contraction on the vein, but to interference with the lymphatics, and if there is temporary edema it soon subsides and it is not due to the pressure on the vein.

I would like to hear from Dr. Broders along this line.

Dr. A. C. Broders, Rochester, Minn.—Mr. President, and Members. In case of cancer of the breast, it is very unwise to remove the breast without taking off the muscle because, as Dr. Horsley says, the lymphatics invade the muscle, and if you leave the mucle there you will leave cancer, or a route for it.

In regard to the serum diagnosis of cancer and serum treatment of cancer, I do not much believe in it. In Los Angeles I was talking to a man some time ago, who has some ideas that the time will come when we will be able to diagnose cancer by the blood. We may get some results from it by serum treatment, but at present I think we had better rely on the cells as we see them under the microscope or a good description of the cancer, rather than depend on blood examinations. There has been much work done along that line in the Mayo Clinic by a female physician. She has been working on goats' and cats' blood and all animals' blood. She has cells of all descriptions and all sizes and I belive at this time she is not any farther advanced than she was two or three years ago. She is doing some very interesting work though. I think so far she has been able to accomplish nothing though her studies are very interesting; she brings them and shows them to me and every few days she will have something interesting to show, but I always believe in sticking to the conservative side and not letting your imagination run away with you. A person can do experimental work, but to do good experimental work, he must be very enthusiastic: as Dr. McCarthy always tells his students, the pendulum always swings too far and then back. As a test of that he will take a pair of scales and he weighs something and the student weighs a specimen, and the first thing he did was to put a weight over-balancing it and then it would come back. Experimental people have to exaggerate things to make you grasp the ideas, but then they have to come back, and I believe that as time goes on we may learn something more about the diagnosis of cancer from examination of the blood. Dr. Bunting, of Madison, and Dr. Yates, of Milwaukee, have done a great deal in the diagnosis of Hodgkin's disease. They first isolated the bacilli and at one time they thought that was the specific organism of Hodgkin's disease, but as they keep studying they find it has been isolated in other conditions; in fact, the pathologists in the Mayo Clinic found them in glands in the neck, take them out in operations, and they have been isolated in other portions of the body. Nevertheless, all those things we have to pay attention to because in that way we may pick up something. As far as Hodgkin's disease is concerned, we believe it is related to lymphosarcoma. Some cases we call Hodgkin's disease and others lymphosarcoma. Maybe in one case you get a picture typically lymphosorcoma and in the same case the other. When you get a case of that kind you can say it is a lymphoid condition and let it go at that.

I have enjoyed this discussion very much and especially Dr. Horsley's paper and Dr. Henson's paper, and I would be glad to hear from Dr. Jones in regard to diagnosing cancer by the blood. I thank you.

Dr. H. E. Jones.—What I had to say was—the impression was Dr. Horsley thought that this was biological. It is not that. And it is not microscopic work, that is carried out for verification. This other work is so much more reformed than microscopic work that there is no comparison. As I stated, the recognition is made by the physical forces just on the same principle as wireless telegraphy—a man at one station recognizes what one says at another station. It is done by the physical forces and by the vibratory effect.

The President.—Is there any further discussion on this paper? If, not, we will pass on to the next paper.

Dr. J. W. Henson, (closing discussion).—With reference to the early diagnosis referred to by Dr. Jones, I purposely did not embody it in my paper as it is too big a subject in itself. You will remember I prefaced the paper by saying we would save more lives if we knew more about cancer in the early stages. This question of early recognition is not easy. It is extremely difficult. There are several factors and I will not attempt to take the time to discuss all the ramifications of it. One of the most serious of them, besides the fact of the patients themselves concealing the fact that they have a tumor of the breast, is the ignorance or neglect on the part of the doctor to whom the patient appeals. I just want to mention that.—I will not take time to go into it. That is one of the most serious things connected with the question. I hope the time will come when we can recognize cancer by some biological test. I do not believe laboratory methods are successful yet; they may be, and I hope they will be.

As to providing against swelling of the arm in the removal of the breast: I feel very strongly on that. When you take the statistics of two great men like Bryant, of London, who, in over 40 years, had seen one recurrence in the muscle after radical operations, and Murphy who had never seen one, it makes one pause and consider if it is not worth while to take the infinitesimal chance of recurrence rather than the 33⅓ per cent. of a swelled an painful arm.

Dr. Horsley made another point that in most cases there is no swelling of the arm. I am bound to differ with him on that. I have seen them. My method may not be as good as his; I do not know. I have seen them around me, where operated upon by other surgeons of unquestioned ability. A lady a few blocks from me is typical of this point. Her arm is almost useless and probably will be the rest of her life, and when we try to go back behind statistics from such men as Greenough, of the Massachusetts General Hospital, we must admit those statistics should count for a great deal. I am

not here to discuss the question of whether or not pressure on the vein or the removal of the lymphatic glands will cause the swelling. The facts seem to be that in the hands of those who have put muscles in the axilla to cover the nerves and vessels the results are good in that this swelling does not follow.

Now it makes no difference whether the original cause is by contraction of the fibrous tissue on the vein or what not, if the placing of some tissue on top prevents a recurrence, then by all means do it.

Some of you, I know, will remember the fact that a Greek surgeon, Kondoleon, has an operation for lymphedema.

His operation applies where for any reason there is a blocking of the superficial lymphatic chain in an extremity. The principle of the operation is based on the fact that there is a series of lymphatics between the superficial and deep fascia and a series of lymphatics beneath the deep fascia, with no communication between the two. His operation is to make a long incision down to the deep fascia, take out a strip of the deep fascia or tuck the strip down between muscles, thus establising a communication between the superficial set of lymphatics and the deep set, so the latter can take up the duty of drainage of the parts needing drainage.

This operation has proven effective according to Kondoleon's report.

In doing the radical operation for cancer of the breast the operation is particularly to remove the deep fascia, that is one of the essentials of the operation. In doing this you open up a communication between the superficial set of lymphatics and the deep set. You really do Kondoleon's operation when removing the breast so when the swelling occurs it would seem not to be due to interference with lymphatic return, but interference with venous return.

However, this is not the point at issue in the present discussion so much as the fact that about one-third of the subjects of operation have the swelling of the arm as the operation is usually done, whereas when the axillary vessels are covered by muscle at the time of the operation they do not have swelling of the arm following the operation.

My point is to prevent this swelling.

If I find that some other structure than the pectoral muscle will answer as well, I will gladly use it, but by all means lets prevent this post-operative swelling of the upper extremity.

PARESIS.*

By W. C. ASHWORTH, M. D., Greensboro, N. C.
Medical Director, Glenwood Park Sanitarium.

Paresis or general paralysis of the insane is now recognized as a syphilitic disease, especially since the Spirocheta pallida has been found in the brains of paretics by Noguchi and Moore, Foerster and Wile.

Collins says that in general paralysis the destructive action of the causative organism "is expended largely on the parenchyma or ganglion cells of the cortex of the brain. Any part of the nervous system may, however, be subject to its ravages, but the symptoms of the disease are always finally and conspicuously cerebral."

Clark says: "In paresis, there is a primary parenchymatous encephalitis with secondary changes in the meninges, a perivascular cell infiltration with plasma cell and leucocytes, a proliferation of neuroglia cells and a diminution in the number of pyramidal cells of the cortex, and later atrophic changes in the cells of the basal ganglia-medulla-spinal cord and cerebellum. There is a real atrophy of the brain cortex which accounts for the permanence and severity of the symptoms and the comparative ineffectiveness of even the most approved methods of treatment."

In the diagnosis of paresis, the most important early symptoms are:

1. Physical:—Loss of pupil's reaction to light and change in outline of pupil, tremor of lips tongue and hands, alteration in tendon jerks, slight paresthesias, slurring or dropping of words in speech, disturbed co-ordination in purposeful movement, especially in writing.

2. Mental:—Loss of memory, nervousness, and alteration of personality or "change in disposition."

A Wassermann test of the blood and of the spinal fluid, and other tests of the spinal fluid are necessary in diagnosis.

The typical reactions in paresis are:

Wassermann in blood positive.

Wassermann in cerebrospinal fluid positive,—

Positive in about 85 per cent with 0.2 c.c. fluid; positive in 100 per cent with larger quanities of fluid.

Globulin reaction in spinal fluid positive (95 to 100 per cent.).

Lymphocytosis of spinal fluid.

Gold reaction test of spinal fluid, typical paretic curve.

Remissions are usual in paresis, especially in the early stages.

Paresis has been regarded as an incurable disease, and is still so regarded in most cases, unless taken in the very early stages.

Collins says: "It is a fatal disease. Once it is fully developed it is subject neither to amelioration nor to interruption. Early and vigorous treatment of syphilis before the organisms have made their onslaught on the parenchyma of the central nervous system has

*Read before the Tri-State Medical Association of the Carolinas and Virginia, at Charleston, S. C., February 20-21, 1918.

wrought a change in the clinical display of the disease. The hope is justifiable with our enhanced capacity to deal with syphilis based on a profounder knowledge of the principles or laws which govern the life history of the spirochetes and their susceptibility to destruction by arsenic, that finally we may be able, first, to prevent general paresis, and failing in this, to cure it. Its prevention is synonymous with the prevention and adequate treatment of syphilis. There is no encouragement from experience recent or remote to justify the hope that we shall be able to cure general paresis until such time when we shall recognize the disease much earlier than we do now. We must thwart the preparations that the spirochetes make in the nervous system soon after infection, and we must annihilate them in their early skirmishes."

Swift says: "The best treatment of brain gummata, tabes and paresis will always be their prevention. * * *

"It goes without saying that the best preventive of syphilis of the central nervous system is the prophylaxis of syphilis, but this problem is far from solved. Next in importance is the proper treatment of syphilis in the early stages. It should be emphasized that no case should be released from treatment until the cerebrospinal fluid has been shown to be normal, insofar as pleocytosis and Wassermann reaction are concerned."

The form of treatment at present advocated as most hopeful in paresis is the intraspinal injection of salvarsanized serum.

The two technics most used are those of Swift and Ellis, and Ogilvie.

The Swift-Ellis technic, as described in their article in *Archives of Internal Medicine*, 1913, is as follows:

"One hour after the intravenous injection of salvarsan 40 c.c. of blood is withdrawn directly into bottle-shaped centrifuge tubes, and allowed to coagulate, after which it is centrifugalized.

"The following day 12 c.c. of serum is pipetted off and diluted with 18 c.c. of normal saline. This 40 per cent. serum is then heated at 56 C. for one-half hour. After lumbar puncture the cerebrospinal fluid is withdrawn until the pressure is reduced to 30 mm. cerebrospinal fluid pressure. The barrel of a 20 c.c. Luer syringe (which has a capacity of about 30 c.c.), is connected to the needle by means of a rubber tube about 40 cm. long. The tubing is then allowed to fill with cerebrospinal fluid, so that no air will be injected. The serum is then poured into the syringe and allowed to flow slowly into the subarachnoid space by means of gravity. At times it is necessary to insert the plunger of the syringe to inject the last 5 c.c. of fluid. It is important that the larger part of the serum should be injected by gravity and if the rubber tubing is not more than 40 cm. long the pressure cannot be higher than 400 mm. Usually the serum flows in easily under even a lower pressure."

Slight modifications of this technic have been made. Some authorities withdraw the blood in less than an hour (30 to 45 minutes) after the initial dose of salvarsan. In some cases the strength of the serum used is increased to 50 or 60 per cent. instead of 40 per cent. Swift and Ellis say this increase should be made when patients do not show the usual reactions.

Dr. Ogilvie has designed another method for the preparation of the salvarsanized serum *in vitro*, by which the exact dose of salvarsan used may be measured. This method is as follows:

About 50 c.c. of blood is withdrawn and centrifuged. When the serum is perfectly clear, 15 c.c. is taken and the amount of salvarsan to be given added. The salvarsan is prepared as for intravenous treatment in such strength that each 40 c.c. of the solution will contain 0.1 gm. of the drug, and each cubic centimeter 2.5 mg. Although Ogilvie has used doses up to 4.0 mg. of salvarsan, he prefers smaller doses—not over 1.0 mg. For repeated use, he says, "0.25 mg. to 0.5 mg. is the safest and most effectual dose to employ." Larger doses are apt to produce too severe reactions. The blood serum and salvarsan solution should be at the same temperature when the two are mixed. "The serum is then gently agitated to thoroughly mix the two and is placed in a thermostat at 37° C. for forty-five minutes. From this it is placed in a thermostat at 56° C. for thirty minutes." After making the spinal puncture, the serum is introduced from the syringe by gravity.

Results with this form of treatment have not been so hopeful in paresis as in either cerebrospinal syphilis or tabes. Marked improvement has been noted in some paretics, espe-

cially in the earlier stages of the disease, and the method is regarded by many as deserving more extended trial in paresis.

In regard to the intraspinal treatment, Riggs and Hammer say: "We believe that, by intraspinal medication, remissions are greatly increased in frequency; that in early paresis, marked improvement may occur with a possible arrest of symptoms." To be effective, they say treatment must be early and persistent. They approve both the Swift and Ellis technic, which they have used chiefly, also Ogilvie's, and speak of Wardner's cerebral puncture, which they have not tried, as perhaps the best method in cases of paresis of long standing.

Fordyce says of intraspinal treatment in paresis: "While a promise of cure cannot be held out in cases which are clinically developed, the treament is of value in inducing remissions, making the patients socially possible and amenable to home care, and in a few cases restoring them, partially at least, to economic efficiency. If the diagnosis of paresis can be established through the colloidal gold reaction, when the infection is in its incipiency, we may be justified perhaps in speaking of a cure."

BIBLIOGRAPHY.

Church, A.—Modern Views of Syphilis of the Nervous system. *Jour. Amer. Med. Assoc.*, 66: 1596 (1916).

Collins, J.—Pathognomonic Alterations of the Cerebrospinal Fluid in Syphilis of the Nervous System. *Amer. Jour. Med. Sci.*, 151: 222 (1916.)

Collins, J.—Recognition of General Paresis While it is Still Susceptible to Treatment. *Jour. Amer. Med. Assoc.*, 66: 851 (1916).

Darling, I. A. and Newcomb, P. B.—Correlation of Clinical and Serological Findings in Paresis and Cerebrospinal Syphilis. *Amer. Jour. Insan.*, 72: 449 (1915-16).

Dunlap, C. B.—The Pathology of General Paralysis. *Amer. Jour. Insan.*, 71: 249 (1914).

Fordyce, John A.—Syphilis of the Nervous System. *Jour Cutan. Dis.*, 34: 713 (1916).

Heinmann, W. J. Syphilis of the Central Nervous System. *Med. Times*, 44: 353 (1916).

Kaplan, D. M. General Paresis. *N. Y. Med. Jour.*, 100: 397 (1914).

Kiely, C. E.—General Paresis. In Nerv. and Ment. Dis. Monograph ser. No. 14, 1913.

Lind, J. E.—The Early Diagnosis of General Paresis. Internat. Clin., 25th. ser. 1: 115 (1915).

Meyer, A.—Differential Diagnosis of General Paresis. *Amer. Jour. Insan.*, 71: 51 (1914).

Mitchell, H. W.—General Paralysis of the Insane; Recent Developments. *N. Y. Med. Jour.*, 100: 605 (1914).

Nonne, M.—Syphilis and the Nervous System. Philadelphia, 2nd. ed. (1916).

Ricksher, C.—The Onset of General Paralysis. Johns *Hopkins Hosp. Bull.*, 26: 174 (1915).

Truitt, R. P.—Syphilis and General Paralysis. *Pan-Amer. Surg. and Med. Jour.*, 20, No. 6: 46 (1915).

TREATMENT.

Amsden, G.—Intraspinal Treatment of Paresis. *Jour. Nerv. and Ment. Dis.*, 43: 265 (1916).

Clark, A. S.—Treatment of Paresis and Tabes Dorsalis by Salvarsanized Serum. *Amer Jour. Insan.*, 72: 125: 355: 485 (1915-16).

Cotton, H. A.—Treatment of Paresis and Tabes Dorsalis by Salvarsanized Serum. *Amer. Jour. Insan.*, 72: 125: 355: 485 (1915-16)

Dexter, R. and Cummer, C. K.—Intraspinal Treatment of Syphilis of the Central Nervous System. *Archives Internal Med.*, 17: 82 (1916).

Dunton, W. R. Jr., and Sargent, G. F.—Duration of Paresis Following Treatment. *Amer. Jour. Insan.*, 73: 241 (1916).

Evans, B. D. and Thorne, F. H.—Treatment of Paresis. *Amer. Jour. Insan.*, 73: 241 (1916).

Gradwohl, R. B. H.—Intraspinal Therapy of Syphilis of the Nervous System. *Ill. Med. Jour.*, 28: 132 (1915).

Hall, G. W. and others—Further Observation on Intraspinal Medication. *Jour. Nerv. and Ment. Dis.*, 44: 250 (1916).

Hammond, G. M. and Sharpes, V.—Treatment of Paresis by Injection of Neosalvarsan into the Lateral Ventricle. *Jour. Amer. Med. Assoc.*, 65: 2147 (1915).

Hassin, J. B.—Intraspinal Arsenic Treatment of Syphilis. *Jour. Amer. Med. Assoc.*, 65: 2078 (1915).

Hunt, E. L.—Intraspinal Administration of Mercurialized Serum in the Treatment of Syphilis of the Nervous System. *Jour. Amer. Med. Assoc.*, 66: 404 (1916).

Lautman, M. F.—New Method for Intraspinous Treatment of Neural Syphilis with Mercury. *N. Y. Med. Jour.* 104: 1281 (1916).

Ogilvie, H. S.—Intraspinal Treatment of Syphilis of the Central Nervous System with Salvarsanized Serum of Standard Strength. *Jour. Amer. Med. Assoc.*, 63: 1936 (1914); later article in *Med. Rec.*, 87: 1062 (1915).

Ogilvie, H. S.—Results of Intraspinal Treatment in General Paresis. *Med. Rec.*, 89: 173 (1916); also in *Jour. Nerv. and Ment. Dis.*, 43: 263 (1916).

Read, C. F.—Treatment of Paresis; Intralumbar Injections of Neosalvarsan. *N. Y. Med. Jour.* 102: 561 (1915) also in *Jour. Nerv. and Ment. Dis.*, 42: 756 (1915).

Riggs, C. E. and Hammer, E. M.—Shall We Treat The Paretic? *Jour. Amer. Med. Assoc.*, 68: 194 (Jan 20, 1917).

Swift, H. F.—Intraspinal Therapy in Syphilis of the Central Nervous System. *Jour. Amer. Med. Assoc.*, 65: 209 (1915).

Swift, H. F.—Treatment of Syphilis of the Nervous System. *Amer. Jour Med. Sci.*, 152: 490 (1916).

Walker, I. C.—Treatment of Central Nervous System Syphilis. *Boston Med. and Surg. Jour.*, 174: 195 (1916).

Walker, I. C. and Haller, D. A.—Treatment of Syphilis of the Central Nervous System. *Archives Internal Med.*, 18: 376 (1916).

Wardner, D. M.—The Intracranial Injection of Salvarsanized Serum. *Amer. Jour. Insan.*, 72: 643 (1916).

THE MANAGEMENT OF CONSTIPATION AMONG SCHOOL GIRLS.*

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Constipation should be of the greatest interest to every practicing physician because there is no clinical symptom more frequently encountered in the practice of medicine. The fact that it is a most commonplace affection, is obstinate in character, and easily relieved temporarily, makes it a matter of indifference to the general practitioner and permits him to resort to the easiest means at his disposal—pernicious use of purgative drugs. We know that constipation is but a symptomatic expression of some underlying disorder and our main line of treatment must be directed not to symptomatic relief but to the removal of the cause. In this paper, I wish to treat of my subject not as a mere symptom but as a distinct affection, and my remarks will deal more specifically with the condition as I have observed it in my clinical work among school girls.

It would be pertinent, however, to touch first upon the physiology of those forces which bring about the normal passage of the feces through the intestinal tract. The walls of the intestines are arranged in two layers, an outer longitudinal, and an inner circular coat, between which are situated the nerve plexuses of Auerbach and Meissner. The contents of the bowels are propelled onward by contractions in these muscular coats, the contractions giving to the intestines a wave-like motion, or peristaltic movement. The production of peristalsis is brought about by several factors, the main one being its intrinsic nervous control. The sympathetic fibers are chiefly concerned but impulses, direct or reflex, from the central nervous system are also largely responsible. According to Howell, "The physiological center for defecation probably lies in the lumbar cord. This center is probably provided with connections with the centers of the cerebrum through which the act may be controlled by voluntary impulses, and by various psychical states, the effect of emotion upon defecation being a matter of common knowledge."

The nervous element in peristalsis is by no means sufficient in itself, but is aided very powerfully by local stimulation, the chemical and mechanical irritation of the intestinal walls. This irritation is naturally caused by the presence in the bowels of bulky substances which, acting as foreign bodies stimulate the musculature to activity. Attention, therefore, should be directed to those foods which contain the largest proportion of indigestible material as well as those elements necessary to nourish the body.

Solidifying of the intestinal contents does not take place until the sigmoid flexure of the colon is reached, eighteen or nineteen hours after the ingestion of food. The contents of the stomach pass through the pyloric valve in a fluid condition and pass thus through the small intestine, water being absorbed in large quantities from the mass as it passes along. However, the intestinal juices compensate for this loss in water so that when the ileo-cecal valve is reached the mass that passes through it is still in a fluid condition. The passage from now on becomes slower in order that absorption may be facilitated, the length of time for the passage from the ileac colon to the rectum being approximately about seven to eight hours, the contents becoming progressively less fluid as it passes along.

The act of defecation is accomplished by the united aid of the abdominal mucles and the diaphragm, and, normally, the rectum from the splenic flexure to the anal orifice is completely emptied.

The causes of Constipation may be either general or local. Among the general causes may be written: sedentary habits, chronic discases, such as those of the liver, stomach, intestines and kidneys; nervous disorders, neurasthenia, hysteria, etc.; errors in diet; and drugs such as lead, opium, etc. Heredity is thought to play some part as a factor, but we are inclined to doubt now its influence but ascribe this factor more to unformed habits in chilhood than to hereditary tendencies. Of the local causes: obstruction from within or without; muscular weakness, or atony from overdistention, obesity, disregard of the desire to evacuate; drugs and colonic inflammations.

Leaving here the general subject of constipation and not going into the details of symptoms, diagnosis or sequelae, I will hasten at once to the more specific discussion of constipation among normally healthy school girls. I will discuss together the cause and the treat-

*Read before the forty-eighth annual meeting of the Medical Society of Virginia, at Roanoke, October 30-November 2, 1917.

ment which I have found most successful among them.

From my observation of this condition among normally healthy school girls, I am right well convinced by this time that this habit of constipation, which unfortunately is very prevalent among them, is entirely preventable and due, in the main, to five of the above named causes:

1. Dietary indiscretions;
2. Insufficient exercise;
3. Insufficient ingestion of fluids;
4. Lack of regularity in defecation;
5. Cathartic drugs.

In the case of one or all of the first four it is nearly always possible to draw from the patient a confession of irregularity, but in the matter of drugs, catharsis is looked upon as a necessary evil and one not in the power of the patient to prevent. Girls, however, are very amenable to suggestion, and in all my treatment I make free and full use of that fact, including in every treatment suggestions covering all five points named.

1. Taking up first errors in diet and its management.

In the majority of girls coming to boarding school, the increase in weight during the school year is from one to thirty pounds. This is due to the enormous ingestion of carbohydrate in the form of sweets, pickles, crackers and other ready-to-eat foods, so temptingly and cheaply displayed, and looked upon by them as a necessary adjunct to the monotony of school fare. Sugars and starches, being readily assimilated and lacking in residue, naturally tend, as a diet, to constipate by their failure to provide sufficient bulk for the intestinal musculature to contract upon. It is absolutely necessary in order to achieve results and to get co-operation, to call the patient's attention to this and to explain the difference between the action of carbohydrates and that of the so-called "fodder vegetables" on the intestinal tract. It is my custom to write out a list of those foods to eat and those to avoid, never trusting to the memory. Just mentioning in passing, those foods rich in cellulose: we have cabbage, tomatoes, onions, spinach, corn, string beans, lettuce, cucumbers, asparagus, wheat and rye bread, and the coarser cereals, oatmeal, corn meal and hominy. Bran is also a valuable help. I have been successful wherever I could persuade the patient to use it. Away from her mother and home, where it could be prepared in a palatable manner, this is not always easy. However, whenever possible, it should be used as an addition to cereals, breads, etc., and not alone; although it could be used alone and mixed in water, but my experience does not lead me to advocate this method. The best fruits to advise are apples—raw or cooked—peaches, plums, cranberries, grapes, prunes, dates, figs, all forms of stewed fruits, dried fruits and preserves. Some fruit should be taken at each meal if possible. I instruct every patient to eat a piece of fruit before retiring at night. If there is any one hour in the twenty-four when it would be more advantageous to eat fruit for this purpose, especially for those who have acquired the laxative habit, it is at this hour, as it tends to produce a psychic effect which, if persisted in, will eventually help the patient to eliminate drugs.

Lists of food to be avoided, I give in a general way, but do not particularly lay any stress on different articles, for it is not part of my plan to allow girls to concentrate on avoiding any common foods. These in a general way, are excess of eggs or milk, sweets, candies, pastries, nuts, cheese, crackers, new white bread, hot breads of any sort, toast, macaroni, rich stews and gravies, rich dishes, most chafing dish products, condiments, spices, pepper, mustard, etc.; soda fountain drinks, etc., just those things that the girl usually has to go out of her way to obtain. I have never found it necessary to cut down tea or coffee unless it was taken in excess, or unless the patient herself felt that it was doing her harm.

2. The lack of exercise contributes in a large extent to constipation among school girls. They have not the time to give to exercise. They have gymnasium twice a week it is true, which goes a long way towards hardening muscles and giving a general tone to the body, stimulating circulation and invigorating the system generally, but the other five days in the week are usually mental grind and muscular inactivity. Many girls, if allowed to do so, lead almost sedentary lives, for the energy required to meet classes isn't strenuous. In many cases I have gotten good results by persuading the girl to put down upon her daily schedule a half hour walk and personally direct the distance to be covered.

Wherever the girl has felt in herself the beneficial results of this course, it is not hard to get her to extend the time and distance. Few of the real sports that are recommended to give such good results can be obtained in the average boarding school. Musser suggests horseback riding, mountain climbing, swimming, rowing, golf. These are out of the question in many schools. "Gym" work, tennis and walking are the most available, and good results can be obtained from them if taken up in a systematic way. "Setting-up" exercises are highly recommended by some authorities and special exercises are outlined for constipation. These taken regularly and systematically are no doubt of great value but I have found that they call for more energy and time and persistence than any normally healthy school girl is willing to give. Where a girl could take these at home under the supervision of her mother, the results ought to be good as the exercises are specially purposed to strengthen the abdominal muscles.

3. Insufficient ingestion of fluids: It is a matter of common knowledge to all of us that people as a general rule do not drink enough water. It is probably one of the most common items in treatment of all our cases, no matter what the disease. Girls are not naturally water drinkers. I have never yet discussed the subject of water with patients suffering with constipation that I did not obtain the confession, "I know I do not drink enough water." One would wonder why, when they knew it, they do not apply the remedy. They know it with their heads but have never been taught to assimilate the knowledge in a practical way. In order to help them get this idea firmly fixed as something they can use in a practical way, I have a distinct line of talk that I give them on this subject. I usually put my suggestions in the form of questions, as it sets them to thinking of the subject and gains their more concentrated attention. Moreover, school girls are accustomed to questions and they are quite at home when any are fired at them. To put my method briefly, it is something like this: "How much water does the body lose daily from perspiration?" I supply the answer: "About two pints," which amazes them.

How much from respiration? Two pints, approximately. How much by way of the kidneys? Approximately two pints, probably, for the average school girl. Reduce this to glasses, which is a term one may handle familiarly—it is six pints, or twelve glasses, daily loss of fluid from the body. If, then, the body loses twelve glasses of water a day, how are you going to make up this loss? In the fluid part of foods at meal times one probably gets four glasses of water or two pints. The rest of this must be made up in some sort of fluids, or in plain water. When this truth goes home, I have had little trouble with the water question. One of my Camp Fire girls, who was a chronic sufferer from constipation, was induced to earn a Camp Fire honor by drinking nine glasses of water daily between meals for two months. During the two months she experienced no trouble whatever, but at the end of the allotted time appeared at my office with the old request for a laxative. It had been a week since the honor had been won and since that time she had neglected to drink her daily portion. The constipation had started up again and she was duly impressed with the relation between lack of water and constipation and assured me that she hoped never to let it happen again.

4. Irregularity: Normally, there should be two evacuations a day, says Dr. Reid. That many perfectly healthy people live quite comfortably on one evacuation daily, and many others know no discomfort, having one movement two or even three days apart, is common knowledge. The question as to whether or not a person is constipated is, therefore, an individual one. It, however, is a safe rule to follow, allowing a person one free bowel movement a day. The most suitable and convenient time for the daily evacuation is immediately after breakfast. With some people the act of rising to the vertical position in the morning is sufficient to arouse peristalsis, but the ingestion of food and particularly of hot fluids, is more likely to do the work.

Bearing this in mind, says Dr. Musser, "The patient should be instructed to make an effort systematically to have bowel movement at a fixed hour each morning. Whether or not the desire for bowel movement is present at this time is a matter of little moment; the effort should be made just the same. If this course is patiently persisted in, the involuntary muscles of the lower bowel will ultimately become sufficiently trained so that at about the given hour contractions will begin and the desire to

defecate will occur." This training the nerves by a definite act of the will is a possibility which is very hard for the patient to take in. They continually shirk this duty and have to be constantly reminded that this is an essential part of the treatment. Habit formation should be begun in childhood. I believe that instilling the proper mental attitude into the patient in regard to this matter is the only real solution to the problem. It is certainly among the hardest problems that we are called upon to solve—that of training the will.

5. Cathartic drugs: There are many different kinds of drug habits. It is needless for me to enumerate them here. But we hear little of a habit which is analogous to them, one which I feel to be just as pernicious in its way. It is the laxative habit and the calomel habit. I will venture to say that few school girls leave home without pills or capsules, or tablets of some kind or other in their trunks. I have run across dozens of Carter's and all other kinds of liver pills, Lydia Pinkham's pink pills, compound carthartic pills, and many others too numerous to mention, saying nothing of various kinds of salts, calomel, oil and suppositories.

The matter of drugs for constipation is a very serious problem. Chronic constipation should be managed without drugs, and, I believe, with patience and the most judicious management, it can be done. No drug should ever be placed in the girl-patient's hands for indiscriminate use. When this is done, it takes longer than ever to adjust the trouble. My plan is, first, to have a long talk with the patient, explaining the dangers of drugs as impressively as I can. I outline the entire treatment, explaining the significance of each point, assuring her of positive ultimate success if she will give her earnest co-operation, taking time to overcome her former bad habits in this line; being willing to keep at it persistently even though it takes years to overcome; and, finally, to report to me at regular intervals and always to come if she needs a laxative. Getting her to report on this matter enables me to note progress, gauge the dose myself or gauge the need of it, and to observe her mental attitude towards the whole subject.

Some girls think it is all because they are away from home, because at home they claim not to suffer in this way. It is an attitude which, whether truth underlies it or not—and probably does, seeing that they have their mothers at home to remind them of such matters—I make every effort to overcome. If it is not overcome while at school, that is, the attitude that one must always live in one environment in order to insure good health, I feel that they are doomed to the laxative habit.

With patients who are so inured to the habit of laxatives and insist on the nightly dose, I have found greatest success in cascara evacuant given in increasing doses, beginning with three minims, t. i. d., increasing one drop daily until one good movement daily results. As soon as this occurs (and I instruct them not to go higher than fifteen drops without consulting me), they must turn and drop one drop daily, and finally drop it altogether. Some very obstinate cases have yielded to this method—of course, vigilantly carrying out all the other parts of the treatment at the same time.

I have found no use for suppositories, enemas or abdominal massage in treating young girl cases. It seems to me that these should have no place in any treatment given to them for this trouble. The girl's mind at this period of her growth is too readily attracted to her body as a result of adolescence and the less any treatment impresses her bodily functions on her mental vision, the better it is for her peace of mind.

In regard to the calomel habit, I am slowly arriving at the opinion that there is no place for calomel in the treatment of constipation among girls. But in untold numbers of cases to the young girl herself, calomel is indicated, and for that reason, against my will, I do give an enormous quantity of it. Some girls demand it as often as every six weeks and I had one girl whose custom was every month. "Bilious" is an overworked term, comprehended by few, satisfactory to all; it always includes constipation. A bilious girl never comes to ask advice; she comes for calomel. If refused and, say, salts is given, she returns dissatisfied in a week for the calomel.

We are told by competent internists that about fifty per cent. of civilized people employ some artificial aid to defecation. What is the trouble? Is it the ignorance of mothers and the lack of training in childhood? Is it the gullibility of the human mind and the ease with which drugs may be purchased? Or is it the medical profession that is to blame for placing these drugs in the hands of indiscrimi-

nating persons? Do these patients not often start the drug habit first under the hands of physicians? A mother told me recently that she gave her infant of twelve months an enema every day. The child had been under the care of a physician, but now was perfectly healthy except for a chronic constipation. In my practice I run against the patients of physicians from all over the state. Every student in the school must acknowledge a family physician, who may be written to in case of need. I see prescriptions and drugs which they have prescribed, I hear them quoted (or misquoted, most probably), almost daily, and I cannot help but feel that we are largely to blame for this state of affairs. How easy it is to sit down and write out a prescription: Cascara Sagrada, grs. v.; or Lapactics, No. 2, at bedtime, and how irksome it is to sit down and probe for the patient's point of view in order to change it and start afresh with hygienic rules and regulations that are simple enough for her to co-operate with. When a girl is hale and hearty, it is annoying to her to have to give time to keeping hygienic rules. Yet it is the only way I have been able to meet this problem with any success. It has taken in some instances one or two years to succeed, and it has meant discouragement often, and weariness to both doctor and patient, but when I have been able to hold my patient until she becomes, as she calls it, "established," and I have seen her mental attitude towards health matters change from a sickly one to a sane one, I have felt highly repaid and felt that all the work I have put into bringing her around to this newer viewpoint has been entirely worth while.

DISCUSSION.

Dr. Wm. L. Harris. Norfolk.—I enjoyed that paper very much, and I am glad to know that we have one school in the state considering that, because I have come across hundreds of cases of chronic constipation in young school girls, and many of them were contracted at schools. Of course, if we go back and take children from their infancy they have very little trouble until school age, when they begin to neglect themseleves and use laxatives. The great trouble I find in treating constipation after they begin going to school is, they get up late at home, eat breakfast in a hurry and rush off to school. That is the same way at young ladies' schools. They do not have time to go to the closet and have proper evacuation each morning, and constipation is certainly a curse on children in school, as well as older people, and it is certainly due more to neglect and the abuse of the purgative. If every purgative was a horrible dose, I think we would have less constipation; but they have such delicious purgatives, and so attractive, that everybody seems to have the idea that they must have it. It is astonishing to find how many people take a laxative every night and also recommend it to their children. I am certainly glad to see that the doctor is doing work at this school which is very much needed, and I hope other schools will adopt some of her ideas.

Dr. Brydon had no further remarks to make in closing.

ELECTROLYSIS IN THE REMOVAL OF WILD HAIRS FOLLOWING OLD TRACHOMA.

By J. HERBERT CLAIBORNE, M. D., F. A. C. S.,
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On October 1, 1918, C. presented himself for examination of his eyes. The following was found:

Swelling of lids, more marked in upper lids, intense spasm and photophobia. After some difficulty, the lids were separated and numerous superficial ulcers of the cornea were revealed, with the usual infiltration of the surrounding tissues.

The condition of the inner surface of the lids, both upper and lower, was such as is seen in cases of acute exacerbations of a subacute chronic trachoma that has suddenly lighted up and become acute. The vision was practically nil and the patient had to be led. Under appropriate treatment, the acute symptoms subsided in the course of two weeks and a typical chronic trachoma was revealed. The lid margins were greatly swollen and a marked entropion was present.

An operation was advised and, the patient consenting, the tarsus of both upper lids was removed by the Claiborne method. Prompt healing took place and the patient left the hospital in ten days. The condition was greatly improved but entropion persisted to a very annoying extent in the right upper lid and in the left upper lid margin there were numerous lashes that still rubbed against the cornea. It was necessary to remove the offending lashes and the services of Mr. S. P. Gilmore, 104 E. 40th St., were sought with the most gratifying results. Mr. Gilmore, by means of the electric needle, removed all the offending lashes, the treatments extending over a period of two months, from six to ten hairs being removed at each sitting. The patient has returned to his work and the vision is 20/40 in each eye.

The operation and removal of the tarsus is indicated in old cases of trachoma in which the tarsus is thickened, heavy, and filled with scars. The pressure and the scratching upon the cornea by this structure is the cause of the keratitis and blurring of the eyes in old

cases of trachoma; in fact, it may be said that the destruction of the eye in trachoma does not begin until scar tissue has been formed in the tarsus or at least is commencing. The removal of the tarsus in such cases is the only remedy which can be used to stop the destruction of sight. The use of blue stone does not absorb the scars in the tarsus and has only the effect of destroying any granulations which may be present. This operation is known as the Kuhnt-Heiserath removal of the tarsus. The method of these observers is bloody and tedious; as performed with the instrument which I have invented for this purpose, it is practically bloodless and short. The operation from beginning to end can be done in fifteen minutes. The removal of the tarsus in such cases, so popular a number of years ago, is becoming less and less indicated by reason of the absence of old trachoma in this country, and that end has been achieved by the strict ordinances of the government against the admission of trachomatous immigrants.

Even after the operation has been successfully performed and the keratitis has been relieved, the scars on the cornea to some extent cleared and the sight improved, the lid is often in a condition of entropion or there are wild lashes present which grow towards the cornea, and sometimes the combination of these two conditions exists. The latter was true in the case referred to. Under such circumstances, it is necessary to keep the lashes from scratching on the cornea, otherwise the effect of the operation is lost. This can be done at times by the operation of canthotomy. At others, canthotomy is not sufficient, particularly when the hairs grow directly towards the eye ball. Then they have to be removed by electrolysis. Most eye surgeons, at least those of large experience, have employed electrolysis in such cases, but that, though a slight operation, requires considerable skill and constant practice for its successful performance and many surgeons do not have enough experience to justify them in attempting it. I have done it a great many times in my life and in many cases successfully. At other times it has not been satisfactory.

At the suggestion of Dr. John B. Hadden, I sent the patient mentioned herein to Mr. Gilmore, who possesses extraordinary skill in removal of hairs by electrolysis. Since then I have ceased to perform this operation myself. I refer my patients to him. He is not a physician, but I see no reason why the skill which he possesses should not be utilized for those who suffer. In several cases he produced results which I could not have achieved.

The object of this note is to call attention to the value of electrolysis in the removal of wild hairs that grow towards the cornea and more particularly when they are associated with entropion following old trachoma; but I would like to emphasize the fact that unless the old tarsus has been removed antecedently, entropion will continue to develop and electrolysis will only be a means of temporary relief.

8 *West Fortieth Street.*

Practical Points in Current Medicine

Conducted by
PUBLICATION COMMITTEE,
Medical Society of Virginia.

Ophthalmology, Otology, Rhinology and Laryngology

Epistaxis.

Bleeding from the interior of the nose may be due to both local and constitutional causes. It is common between the ages of five and fourteen, rare in middle life, and in old age is usually the result of constitutional disease or local neoplasm. Except in malignancy, hemophiliacs, or arteriorsclerosis is not ordinarily of serious import when properly managed. The point of bleeding in about 90 per cent. of all cases is in the anterior portion of the nasal septum.

Local causes are traumatism, acute rhinitis, atrophic rhinitis, ulceration of the septum, varicose veins in septal mucosa, presence of foreign bodies in nasal cavity, tubercular and syphilitic ulcerations, benign and malignant neoplasms.

Constitutional causes may be the acute febrile diseases; blood diseases, such as anemia, hemophilia, leukemia, purpura hemorrhagica, chlorosis, and chronic malaria; disease of the heart and blood vessels, Bright's disease and pulmonary emphysema; violent exertion; temporary sojourn in high altitudes; sudden suppression of the menses; diabetes.

The treatment is either or both local and

constitutional, depending upon the cause. The majority of cases are self-limited and need no treatment, this being especially true of attacks in the young and robust.

Prolonged hemorrhage, not due to constitutional disease or tumors, is usually amenable to intranasal applications of adrenalin and ice packs placed upon the nose. A small syringe full of ice-water may be injected into the nostril. Introduction of a tampon placed so external pressure by the finger on the side of the nose will hold it tightly against the septum is very effective in checking bleeding from the anterior septal vessels. Frequent and prolonged hemorrhage in this area should be met by destruction of the bleeding vessel with the galvano-cautery. When continued pressure becomes necessary a strip of gauze wet with a suitable astringent may be inserted in the nares and packed fairly tight; such packing ordinarily should not be left in longer than twenty-four hours.

Violent nasal hemorrhage, when due to constitutional causes, and not controlled by the above measures, requires a combination of post-nasal and antero-nasal plugging as a last resort. This should not be a very difficult proceedure to a physician possessing average skill. This method of tamponing the nose and naso-pharynx produces great discomfort to the patient and because of the danger of its producing purulent otitis media should never be left in situ longer than twenty-four hours.

The administration of normal horse serum by hypodermatic injection increases the coagulability of the blood and is effective in conditions due to this deficiency in the quality of the blood. Treatment directed to the relief and cure of either the local or constitutional cause should not be over-looked, and resulting anemia from severe loss of blood should be over come by suitable reconstructive medication.

GEO. J. TOMPKINS.

General Surgery

Principles in the Radical Operation for Oblique Inguinal Hernia.

Important at all times, this subject is peculiarly so now, on account of the question of providing for the physical fitness of men for military service. The principles to be observed to get success in operating for oblique inguinal hernia are, (1) absolute observance of asepsis, (2) high ligation of the sac, (3) restoration of the integrity of the transversalis fascia, (4) the proper plastic work for making a satisfactory muscular and aponeurotic buttress over the inguinal canal, (5) the use of the proper suture material, and (6) thorough hemostasis before suturing.

Failure to execute some of these principles applies not only to men who try to do surgery when incompetent, but also occasionally to competent surgeons. I will not consume time and space discussing the question of men doing surgery who should not. The medical profession and the public are waking up regarding this subject. Unfortunately, for a while at least, some incompetent men will be trying to do surgery. Also, unfortunately, these incompetent men think the radical operation for inguinal hernia easy and safe. For them it is neither easy nor safe. Even if they should manage to observe the rest of the principles, it is practically impossible for them to put into effect the second and third principles, viz., isolation and high ligation of the sac and restoration of the integrity of the transversalis fascia. No one should attempt the radical operation for inguinal hernia who is not thoroughly familiar with the surgical anatomy of the inguinal canal. Very serious accidents may and do occur under such conditions. The bladder may be cut. The vas deferens may be cut. The external iliac artery or vein may be punctured with a needle. The deep epigastric artery may be injured.

I knew of a case not long ago where the femoral artery was cut in the search for the sac of the hernia. The omission most frequently made by the trained operator is not taking care of the third principle—restoring the integrity of the transversalis fascia. The hernial sac and its contents extending down the inguinal canal produce an expansion of the tubular process of the transversalis fascia surrounding the structures of the cord.

I grant that if the sac is ligated sufficiently high and the muscular and aponeurotic buttress be well made, a recurrence seldom happens.

Occasionally, however, there are recurrences and I believe some of them are due to failure to correct the expansion of the tube of trans-

versalis fascia, particularly its upper end (the internal abdominal ring). At least one stitch of chromic cat-gut should be placed in the upper end of this tube, thus narrowing the internal abdominal ring, taking care, of course, to avoid the deep epigastric artery. If the transversalis fascia forming the posterior wall of the inguinal canal feels loose, it is wise to take a few reefs in it with chromic cat-gut and make it tense.

Another oversight occurring occasionally in the work of good operators is the failure to remove large pads of fat sometimes found among the structures in the inguinal canal.

J. W. Henson.

Internal Medicine

Laboratory Diagnosis of Renal Tuberculosis.

In the diagnosis of this condition, the results of laboratory examinations are of equal importance with the clinical history and the revelations of the cystoscope. However, a number of considerations enter into the question of a laboratory decision, for or against a positive diagnosis. For instance, as is well known, patients with recognized tuberculosis of the kidneys will, on different occasions, furnish widely varying specimens, some specimens at times containing much pus and easily demonstrable tubercle bacilli; others from the same patient will occasionally present absolutely no such evidence. This, as a matter of fact, is readily accounted for when the pathological process in the kidneys is considered, as findings of pus and tubercle bacilli can only be concomitant with the actual breaking down of tubercular tissues with liberation of the bacilli, and inasmuch as this is necessarily to a great extent, an intermittent process, it follows that specimens vary as to the evidence they may afford for the diagnosis of tubercular kidney. Repeated examinations of the urine are, therefore, frequently necessary. Further, the chances of finding the positive evidence of tuberculosis are enhanced when the total output of urine over a specified period of time is available for examination. The sedimentation of such larger quantities of urine by gravity, followed by further concentration in the high speed centrifuge, holds the best promise for success.

If methods referred to above fail to show the bacillus, we have resort to guinea pig inoculation, a procedure so almost infallible in its results and so reliable that it is scarcely worth while to consider the rare and exceptional conditions, such as minute numbers of bacilli in injectable quantities of the specimen, that could possibly interfere with the specificity of the test. The only objection or criticism of this method of guinea pig inoculation is the length of time that must intervene before final conclusions may be drawn, a matter of a month to six weeks. To obviate this objection, methods have been adopted by which the time may be materially shortened. Injection and traumatism of the glands of the groin is practiced with excision in ten to twelve days, followed by histological study of the gland as suggested by Bloch. By this method results are not always absolutely conclusive, since we have found the same pig injected intraperitoneally to develop, at the same time, the disease within the abdomen when sections of gland tissue so treated gave normal or nearly normal histological appearances.

Treatment of the pig immediately before injection by the X-ray, using a Coolidge tube, with the purpose in view of so reducing its resistance that the bacilli can more rapidly produce the characteristic lesions, has logic to commend it and practical results to bear it out. The earlier published articles on the point suggested a dose which we have found excessive and consequently attended by too great and immediate a mortality from X-ray exposure. Unquestionably, the proper application of the X-ray is a distinct help, cutting the time at least in half, and to that extent meeting the only valid objection to this method as a means of diagnosing tuberculosis of the kidneys.

W. A. Shepherd.

Early Signs of Hyperthyroidism.

Disorders of the thyroid gland more or less profoundly affect the whole body. Disturbances, due to its hyperfunction, appear in the various systems and in the operation of the organs of the body. These disturbances are seen in the autonomic nervous system; in the cardiovascular system, in the general metabolic processes of the body, in the disturbances of other glands of internal secretion, in the brain, and in the gland itself. Now, it is very evident that the degree and scope of the manifestations of this sort, depend upon at least two important factors: first, the etiologic factor, and, second, the duration of the increasing action of the diseased thyroid. While it is

true that the etiology of thyroid disease is not thoroughly understood, it is becoming more and more evident that its hyperactivity, which is associated with this general symptomatology, is closely related to four groups of causes, namely: (1) chronic focal infections, as sinus, antral, alveolar, and tonsillar infections; (2) chronic pulmonary and genito-urinary and intestinal infections; (3) general infections, as syphilis, malaria, typhoid, influenza, rheumatic arthritis; (4) gross disease and disturbances of other organs of internal secretion, especially the ovaries.

In the last ten years, it has been demonstrated that the late goitre cases, with frank symptoms, are distinctly surgical problems, and such patients are relieved only by skilful surgical treatment. During this period, also, physicians have learned that many thyroid disorders, which appear to be advancing to the mature development of a goitre state, yield to medical treatment. This has been accomplished by two means: first, the early recognition of the hyperfunction symptoms; second, by a search for the removal of infection origins, and adequate and persistent medical care until irritative signs are removed.

Now, what are the usual early signs?

I. *Tachycardia* is one of the earliest and most constant signs of Graves' disease. In the heart, that organ which responds to physical and mental stimuli so quickly, one first obtains evidence of hyperthyroidism. Before evidence of struma, before evidence of eye signs, before evidence of metabolic or cerebral signs, a persistent tachycardia, without organic cardiac lesions or other reasonable explanations, should excite suspicion of incipient thyroid disease. It is a sort of rule with me to strongly suspect cases with persistent tachycardia of hyperthyroidism and in such circumstances to proceed at once to look for corroborative evidence in the gland and nervous system. The late signs of palpitation, cardiac dilatation, accidental murmurs and myocardial deficiencies bespeak advanced disease.

II. *Eye-Signs*, next in interest, show up rather early. There may be, however, only one, although several of these signs may appear. Look for: (1) widened lid-slits (Dalrymple's); (2) exophthalmus or protusion of eye balls; (3) delayed movement of upper lids when eye balls are directed downward (V. Graefe's); (4) insufficiency of convergence of eye balls (Moebius'); (5) "dry eyes" and "glistening eyes;" (6) infrequent winking (Stellwag's).

III. *Struma*, or enlargement of the thyroid in the early stage, is often not demonstrable. Physicians have been depending too much, I fear, upon evidence of gross enlargement as a necessary factor in the hyperfunctionating of the gland. The symptoms may be plainly evident in heart and eye without apparent enlargement of the gland. However, with enlargement and signs elsewhere the diagnosis is but the more positive. This increase in the gland may involve one or both lobes; bruit may be elicited; a thrill may be felt.

IV. *Tremor* is an important symptom to be looked for. A large percentage of these cases show tremor. It is fine and rapid (7 to 10 oscillations per second). It is best obtained by getting the patient to extend the arms and hands. In the fingers, when held out rigidly and far apart, the tremor is observed and easily accentuated by any sudden or unexpected noise or excitement. In association with this the patient seems to be "keyed up;" under a tension with a state of unrest. The patient frequently complains of being under the ban of irritation and anxiety. Insomnia is common, also.

V. *Skin Signs—Profuse sweating* is common and, more or less, a constantly associated symptom. It may show locally; certain parts of the body sweat easily without the usual cause. The hair is scant and easily falls out, as seen in eye brows, scalp, axillae, pubic region. Often there is pigmentation about eye brows, nipples, axillae and genitals.

VI. *Emaciation*: Underweight, as related to height, is another interesting sign, although not an early sign always. The fires of combustion are increased in hyperthyroidism. The patient usually loses weight. Protein metabolism is greatly accentuated, showing in some cases toxic action. Carbohydrate burning is disturbed, as is shown by the appearance of glucose in the urine of these patients, which disappears when the patient's thyroid returns to normal.

Comment on Management: Diagnosis made *rest* and *isolation*, under well-ordered hospital environment, is necessary and important. Several months of rest and feeding may be needed after hospital treatment is ended. During this time diet should be carefully studied and prop-

erly balanced. The carbohydrates should be increased while the proteins should be diminished. The fats added, quickly make for increase of weight, which is an important factor. During this period of rest, every possible means should be used to discover the etiologic factor. Careful study of nasal, oral and aural status looking for chronic infection is important. Organotherapy, injections of quinine and urea hydrochlorid and other medical measures need have little place of importance in the treatment if early removal of exciting cause is accomplished and the body of patient carefully rested and nourished.

ALEXANDER G. BROWN, JR.

Reference: Barker: The Clinical Diagnosis of Internal Diseases.

Obstetrics

Pituitary Extract.

With the introduction of every new remedy of any real value, we will read the reports of wonderful results obtained by its use, while other reports will tell of dire and disastrous failures. Taking these widely separated conditions as reported by the two classes of observers, and sifting the enthusiasm from the one and the timerity from the other, we will in time get the true indications and contra-indications of the agent. This has been the history of the recently introduced pituitary extract as used in obstetrical work.

When first introduced, I believed that the remedy could be used with benefit in almost any case of prolonged labor, provided there was no disproportion between the head and the pelvis, and that it was not simply used to save time for the obstetrician. I also believed that the then usual dose of 1 c.c. could be repeated every hour until labor was completed. In fact, I once wrote that "one dose would bring the head from a high forceps to a mid-forceps operation and, if the child was not delivered, the next dose would take the place of a low-forceps delivery."

This was and still is a fact in many cases, but in looking over my records I find I had many more lacerations of the cervix and perineum to repair than I did before I used the drug, and many more than I now have, when I have used this valuable agent in much smaller doses.

The pendulum has moved over to the "safety first" side of the swing, and I use from ½ to ¼ c.c. instead of 1 c.c. I must have the head well engaged and the cervix completely dilated and be certain that the cause of the delay is *not a contracted outlet.* Even with these small doses some lacerations are more extensive than I am inclined to believe they would have been, had nature completed her work unassisted.

Pituitary extract is very useful after the completion of labor in those who have a history of post-partum hemorrhage, in those who have inertia, to make the uterus shut up and remain so until the ergot can get in its effect, in those who are physically weak or have worn themselves out during labor, and especially in the anemic women, where a small loss of blood will retard recovery and diminish lactation.

I find from my cases that the catheter has been unnecessary when the extract has been given during or after labor.

VIRGINIUS HARRISON.

Proceedings of Societies, Etc.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

Reported by EMIL MAYER, M. D., New York, N. Y.

(*Continued from page* 61)

Some Clinical Observations on the Lingual Tonsil.

By GREENFIELD SLUDER, M. D., St. Louis.

The diagnosis of lingual tonsillitis is simple in acute follicular cases. Should it not assume the follicular markings, it is often overlooked, particularly when the mass is not enlarged. It is recognized under these conditions by its color alone. The mass may be much enlarged in acute or chronic cases, which is, of course, easily recognizable. Not so easily interpreted is an occasional small slightly reddened follicle. These are often the origin of the symptoms.

The prognosis for singers and speakers, according to the writer's experience, should be guarded. A lingual tonsil which easily becomes a disturbing factor, either from the work of singing or speaking or from infection, must be considered most seriously. He does not believe that the singing or speaking voice can be developed to any great extent under these conditions.

The treatment of lingual tonsillitis in the acute follicular stage is like that for the faucial tonsils under like conditions. For the subacute or chronic state, with or without enlargement, nothing has been so satisfactory as applications of a small amount of silver nitrate saturated in fifty per cent. glycerin. Salicylic acid saturated in ninety-five per cent. alcohol

is helpful, and does not taste so unpleasant. These may be made daily or as seldom as ten days. For the enlargement, galvanocautery destruction has seemed best. Hemorrhage following surgery of the lingual tonsil is more difficult to manage than any in the upper air passages.

Many of these observations have been made and recorded in more or less this form. The association of lingual tonsillitis with thyroid gland disturbance and with glossodynia, he believes, has not hitherto been recorded.

It is his interpretation of clinical laryngology that the lingual tonsil plays a major role.

DISCUSSION.

Dr. Albert G. Getchell, Worcester: I am very much interested and impressed with this account of the lingual tonsil. The disease undoubtedly has certain lesions that we probably do not appreciate. There is no question that there is definiteness about it and its lesion. I would like to call attention to three points which have impressed themselves upon my experience: first, its relation to the nervous system; second, to hemorrhage; and third, to cough.

There is no question but that trouble in this region would cause cough, but still I think that continued cough should not be attributed to such a lesion without a most thorough examination of the lungs. Simple examination of the sputum without any examination of the lungs whatever, will often show the real cause of the trouble.

Dr. Henry L. Swain, New Haven: I have often seen how many times the sources of little lesions and the inconveniences that patients have suffered from could be attributed to and explained by conditions found in the lingual tonsil. The circulation of the lingual tonsil is peculiar—or, rather, its relation to the veins of the base of the neck is peculiar. The veins from the surface of the tongue gather together into certain large vessels deep down in front and underneath the lingual tonsil. The sudden occurrence of a feeling of fullnsss is perfectly explicable when you consider these venous branches which gather together underneath the lingual tonsil.

It is equally a fact that emotional stress. like an irritable plexus, is sometimes evidenced by this feeling of a lump in the throat, and this condition which I have described explains it.

It is perfectly possible to have a lingual tonsil cough and a bronchitis existing in the same person. If one treats the bronchial part and not the lingual tonsil, he is falling far short of his duty.

Dr. J. Payson Clark, Boston: My experience has been that the enlargement of the lingual tonsil is observed most frequently in middle aged women. The enlargement of the lingual tonsil in children, in my experience, is a very rare condition.

I have had to remove the lingual tonsil in several cases, and have used Myles' lingual tonsillectome. I have also used the wire loop. If this loop can be used it is better, because you are less liable to have hemorrhage. I have not had hemorrhage in any of my cases. I remember being called late one night to see a case for bleeding, where another physician had removed the lingual tonsil that day. The bleeding was not violent, but persistent, and I had a little difficulty in stopping it.

Dr. Thomas Hubbard, Toledo: I think there is no question about the intimate association between acute throat conditions and acute thyroiditis, because I think we find many cases in which we are able to successfully treat the subacute or chronic conditions. It is most helpful in the reduction or checking of thyroiditis.

In a ten-year-old child, four years after removal of her tonsils and adenoids, her lingual tonsils were found enormously enlarged. There was no suggestion of recurrence of either tonsillar or adenoid tissue, but these large masses were a mechanical obstruction to swallowing. I clipped off portions of the lingual masses, and following that there was no improvement nor relief from dysphagia.

Dr. Robert C. Myles, New York City: There are several points about the lymphatic tissue at the base of the tongue. It seems to me that a very interesting one is whether the removal of the tonsils in early life does not by some vicarious attempt on the part of the lingual tonsil to supply the physiologic function of the tonsil, result in their becoming hypertrophied in this attempt.

It has been my habit for many years to remove lingual tonsils in a little different way from that originally indicated. On account of some hemorrhages and cicatricial tissue, I have tried to devise some method of obviating both; one was to take out every other lymphatic tonsil with a guillotine and leave an intermittent one. That aided me very much in relieving

the scar tissue. I have also left islands of tissue. In using the guillotine one should not press too deeply. If you go beneath the tonsil you are more liable to have hemorrhage than if you put the proper pressure on the guillotine, which makes it possible to remove as much as you may elect.

Dr. Burt R. Shurly, Detroit: The importance of this relationship of Waldeyer's ring to the thyroid is certainly a very exact and definite thing, but the key to the whole situation, to my mind, is infection. And while my paper which was referred to by Dr. Sluder was written five years ago, I have followed up carefully a large series of cases since that time. Of course, as Dr. Sluder says, no one expects to treat cases in this manner and not have the proper surgery of the thyroid attended to when that is necessary.

In regard to cases of hemorrhage from the throat, I think perhaps there are a great many mistakes made by not properly examining the chest. We know full well that twenty-five per cent. of all cases of pulmonary tuberculosis have hemorrhage at some time or other during the course of that disease, and it seems to me that it is just a matter of not thinking of that. We should always have a very thorough and complete chest examination wherever there has been hemorrhage from the throat.

Dr. John Mackenty, New York: I believe that any infection in the throat may have secondary expression in the thyroid. This was brought home to me very forcibly by the case of a man with a foreign body in the esophagus. I put in the bronchoscope and failed to get the foreign body, but found the spot where the body had rested. This man was very ill, with a high temperature and pulse, and had a tender enlarged thyroid gland. I was positive there was pus in the neck, and opened the neck and went down and found no pus. I then opened the thyroid gland, and in the center of the gland I found a large abscess which was secondary to the condition in the esophagus.

On another occasion, following the removal of the tonsil, there was considerable local infection and the patient developed acute thyroiditis. So I believe we may say that any infection in the throat or nose may have secondary manifestations in the thyroid, either simple or suppurative.

With regard to the question of bleeding of lingual tonsil, I have found benefit from forcibly pulling the tongue forward and holding it in that position for a time.

Dr. Max A. Goldstein, St. Louis: In reference to Waldeyer's ring, I think it has been rather insignificantly looked into, and Sluder's observation about the relationship to systemic infections taking place through this small lower lymphoid mass ought to give us much food for thought. We are doing a lot of operative work on the faucial tonsil, and our enucleations are coming thick and fast. We know that even when the faucial tonsil has been thoroughly encapsulated, we do have recurrences of systemic infections; and it is likely that many of those infections come, not through the lingual tonsil, but through the lymphoid masses which lie about the pillars. There is some possibility that such observations as were presented by the essayist may give us an opportunity to think of this radical surgery when the time comes for the pendulum to swing the other way.

Dr. Swain has pointed out on previous occasions that the mass of lymphoid tissue is rather dependent for its pathology and inflammation more on the intense venous relationship than on the lymphatic. I think that varicosities are sometimes as frequent in lingual tonsil as are the acute and chronic follicular inflammatory reactions, but those are things this paper has brought forth, and I believe that the development of this particular phase of Waldeyer's ring will give us a little closer insight into the whole pathology of this lymphoid area.

Dr. Greenfield Sluder, St. Louis (closing the discussion): I feel that a very substantial addition to the paper has been given by Dr. Swain in his explanation of the globus hystericus. I did not know the network arrangement of the veins beneath the lingual tonsil, and it is not recorded in any of the anatomies I know of.

Dr. Clark spoke of the enlargement of the lingual tonsil in children being rare. That is not my observation. The enlargement of the lingual tonsil in children is a very frequent manifestation.

I have seen the faucial tonsil take on the recurrent inflammatory reaction with sore throat after faucial enucleation.

That the chest must be investigated in cases of cough seems to me to be self-evident.

Ozena and Asphyxiating Gas.

By MARCEL NATIER, M. D., Paris, France.

The writer finds a melancholy pleasure in presenting the lamentable history of a young soldier, in that he feels that the recital of his case goes to prove conclusively that ozena is but a local manifestation of a constitutional condition, a fact which Natier had repeatedly maintained in previous communications.

In October, 1915, a soldier, twenty-four years of age, who had always been in perfect health, no hereditary or venereal affection, received five bullet wounds and was rendered unconscious by a bomb of asphyxiating gas. His mask had dried up and was valueless. He recovered consciousness only to fall into repeated syncope. He was carried to the rear, transferred to Vitry le Francois, where he had to remain three weeks because of his febrile condition. He suffered most excruciating pains from his nose to the bifurcation of his bronchi, and received special care. Five weeks after the accident he was removed to Paris, to a base hospital, where he remained six months. During all this time he could not swallow except with most excruciating pains. He then was admitted, March 18, 1916, to the Salpetriere, where his extreme muscular weakness, respiratory troubles, ozena and vomiting were noted. On October 25th, the writer first saw him, and noted remarkable collapse of both alæ, ozena active, marked anemia. The collapse of the alæ caused insomnia and mouth breathing, with pain. To relieve this the patient put pieces of a match in each nostril on going to sleep. The ozena was noticed three or four months after the accident for the first time. Irrigations with warm salt water, while causing pain, were followed by amelioration.

As the patient was always well until his injuries, the writer feels justified in tracing the causal factor of his ozena to the asphyxiating gas and the subsequent functional disorders.

Ordinarily ozena is considered inseparable from old and far advanced atrophic rhinitis traceable back to the first years of life, the atrophy slowly developing.

In this soldier the determining cause was at the time sudden and violent, the effect cruel and deplorable. That the unfortunate man did not succumb immediately or in the general delay at the arrival of succor is marvelous. The poor fellow was fortunate in that he did not develop tuberculosis, as thousands of others do. The patient recovered.

The writer says, in his opinion ozena is not a true morbid entity, idiopathic or real, but a unique and always a symptomatic expression of a profound localized disturbance of the general health. Once again it is verified, and supports the assertion that ozena is but a consequence, distant more often, but also under color of exceptional events of the physiologic calamity. The cause of the latter is of less importance. Its intensity merits consideration.

This truth admitted and its verity visible, impresses him.

We are compelled to discard, as he has always done in his studies of the subject, the various theories more or less fantastic, and in particular the microbic theory, invoked to explain the production of ozena.

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(1) Sarcoma of the Nasal Septum; (2) Laryngoepiglottidean Cyst.

By MAX A. GOLDSTEIN, M. D., St. Louis.

Male, aged fifty-six years. Eighteen months ago began to be troubled with occasional obstruction of left side of nose, continuing about a month, followed by relief and then recurrence. No history of epistaxis. Latterly two or three nose-bleeds, not very profuse. No headache or pain of any kind. Loss of fifteen pounds in weight in six months.

Nasal Examination—Mass on septum obstructing left side. Right surface of septum infiltrated and thickened, causing some obstruction on that side. Nasopharynx negative. Throat negative. No evidence of involvement of the accessory sinuses.

Operation—September 26, 1916, mass, together with the entire septum, being extirpated. Recurrence after one month. Histologic examination of mass showed round cell sarcoma.

CASE OF LARYNGOEPIGLOTTIDEAN CYST.

Boy, twelve years old, came under observation September 27, 1915. Had been hoarse since he was one month old. This hoarseness had been ascribed by family physician to a "cold." No laryngologic examination had at any time been made. The condition seemed to remain quiescent all these years until shortly before the boy was brought to the writer for examination, at which time he had become very dyspneic. The dyspnea was quite marked; patient anemic and frail, not cyanotic, and un-

able to speak above a whisper. There had not been much difficulty in swallowing. No regurgitation of food. Laryngeal examination showed a mass the size of a walnut on the left side, involving the laryngoepiglottidean region. There was no fever. Mass was yielding to touch and could easily be palpated with the finger. Mass incised, the contents consisting of clear, yellow, sticky fluid. Subsequent examination of vocal cords, examination of which was heretofore impossible because of obstruction of view by the mass, was negative. Boy regained the use of his voice, though through habit he would speak in an undertone. No recurrence of cyst to date, and boy now speaks in normal voice.

(*To be continued.*)

Analyses, Selections, Etc.

Conducted by
MARK W. PEYSER, M. D., RICHMOND, VA.
Secretary Richmond Academy of Medicine and Surgery, etc.

A Comparison of Physical Signs, Symptoms and X-Ray Evidence Obtained in Pulmonary Tuberculosis.

F. H. Heise and A. L. Sampson, of Trudeau, New York, report in the February number of the *American Review of Tuberculosis*, a comparative analysis of the evidence obtained by different methods of examination in pulmonary tuberculosis. They review the varied pathology of the lung in tuberculosis and the probable associated changes of density of the different lesions as assumed to exist as a basis for the interpretation of X-ray plates. By means of the X-ray some idea is gained of the extent of the disease and the type of pathology underlying the physical signs, giving rise to the local and general disturbances of the system, thus bridging, in part, the gap which is left between the evidence derived from symptoms and physical signs respectively. The authors have been impressed with the frequency of cases with clinical evidence of pulmonary tuberculosis without signs in the X-ray plates of gross densities but with definite shadows of tubercles in the linear arrangement, concomitant with the pulmonary ramifications. They interpret this as a possible manifestation of a lymphatic pulmonary tuberculosis, and infection from the medium bronchi of the lymphatic tract or spaces of the tissue surrounding the medium bronchi and arteries. They call this the peribronchial or lymphatic type as contrasted with the parenchymatous or alveolar type. Dividing the latest series of 235 cases at the sanatorium into these two groups they have tabulated the percentage of occurrence of those symptoms, physical signs and laboratory findings which would in themselves indicate the probable existence of a pulmonary tuberculosis. They conclude from the analysis that there is a type of pulmonary tuberculosis showing X-ray shadows of peribronchial distribution which is otherwise characterized as follows:

1. By the less frequent occurrence of hemoptysis.
2. By the infrequency of the occurrence (7 per cent.) of tubercle bacilli in the sputum.
3. By the limited occurrence (3 per cent.) of medium coarse rales.
4. By the less frequent occurrence of the positive complement fixation reaction.
5. By an apparently lessened skin sensitiveness to tuberculin.

It would seem probable that this type of lesion has no communication with a bronchial lumen—that absorption into the blood stream does not take place as freely as in the usual type.

Assuming a justification for the differentiation of the two types seen in the X-ray plates the authors make a further comparison with the usual classification of cases made by symptoms and physical signs. They find that roughly one-half of the incipient cases are of the patchy or parenchymatous type. Of the moderately advanced cases the greater number showed evidence of parenchymatous change. The latter is probably a more advanced or more unfavorable lesion or the expression of a different kind of infection either as to time or route of infection or both. The subdivision of incipient cases makes feasible a more accurate knowledge of the type of pathology and probably also of the clinical course.

The X-ray is also found in their analysis to be of great value in the diagnosis of early cases without definite physical signs and as a check upon the physical examination where the lesions give signs limited to dullness, changes in breathing and increased voice transmission.

Cigarette Smoking and Tuberculosis.

G. B. Webb. of Colorado Springs (Major, M. R. C., U. S. A.), publishes a short report in the March number of the *American Review*

of Tuberculosis on the effect of inhalation of cigarette smoke on the lungs as observed in over 3,000 chest examinations of soldiers recently examined for tuberculosis. Bronchitic conditions were noted, characterized by the presence of ronchi or coarse sibilant rales and sometimes also by coarse moist rales. The majority of cigarette smokers have these ronchi while the majority of non-smokers, pipe smokers and cigar smokers do not. Among the soldiers deemed unfit for service because of tuberculosis a larger percentage of non-smokers than smokers were discharged. If non-inhalers who do not show ronchi are added to the non-smokers then thirty per cent. of those discharged on account of pulmonary tuberculosis did not inhale cigarettes.

Webb concludes that his studies at least suggest that the inhalation of cigarette smoke does not aid in the outbreak of pulmonary tuberculosis.

Book Announcements and Reviews

The Monthly will be glad to receive new publications for acknowledgment in these columns, though it recognizes no obligation to review them all. As space permits we will aim to review those publications which would seem to require more than passing notice.

A Treatise on Clinical Medicine. By WILLIAM HANNA THOMSON, M. D., LL. D., formerly Professor of Practice of Medicine and of Diseases of the Nervous System in the New York University Medical College; Ex-President of the New York Academy of Medicine, etc. Second Edition Revised. Octavo volume of 678 pages. Philadelphia and London: W. B. Saunders Company. 1918. Cloth, $5.50 net.

The author begins with a chapter on "Catching Cold," a condition which he claims that, outside of hot, moist climates, is "the most common cause of disease and of death." His discussion of this subject is both interesting and plausible. The second chapter deals with the "Significance of Common but Important Symptoms," such as emaciation, cough dyspnea, and vomiting, and presents a practical aspect, with a value for every-day work. Chapter III refers to the action of "Remedies" —non-medicinal, medicinal, and vaccine and serum therapy,—and serves an important purpose in a work of this character. Then follow chapters on "The Infections," "Diseases of Special Tissues or Organs," and subjects in general that commonly appear in a volume on the practice of medicine. We find no mention as to the use of vaccine in pneumonia, at which we are surprised, though possibly this was beause its practical value has not been sufficiently determined. However, notwithstanding what appears to us as a tendency at times to dogmatism, especially with reference to treatment, the merit of the book is beyond doubt, and should cause it to receive a hearty reception.

Criminology. By MAURICE PARMELEE, Ph. D. Published by The Macmillan Co. 1918. Price, $2.

The principal merit of the author is the application of scientific methods to the study of human and social phenomena. Parting from the fundamental principle that human conduct is due to natural causes, he considers in very great detail the problems of criminology as depending on various problems of other sciences. Anatomy, physiology, psychology and psychiatry supply the means for the study of charateristics of criminals. Zoology, anthropology, history and sociology contribute to the origin and evolution of crime. Metereology, demography, economics politics aid in the study of environment. Jurisprudence contributes to the study of the penal treatment.

Accordingly, the author with considerable elaboration discusses the relation of each of those several sciences to the problems of criminology which is but a hybrid product of other fundamental sciences. Twenty-seven chapters are devoted to the study of that relationship which is presented, indeed, in the most instructive manner. Particularly interesting is the chapter on the mental basis of criminality. Here the author studies instinct, habit, feeling and intelligence in general and gradually leads the reader to the conception that the criminal class is at all times and places made up of persons who cannot adapt themselves to organized society. Prevention of crime occupies a prominent part in the present volume. The author's view is that prevention is closely associated with prevention of other social evils and that a normal life is the best preventive of crime.

The book is written entertainingly and denotes the author's excellent grasp of the entire subject of Criminology. It is to be recommended to all who are interested in social problems.

ALFRED GORDON.

Editorial.

Medical College Of Virginia Finals.

Finals of the eightieth session of the Medical College of Virginia were begun on the evening of June 2, with the baccalaureate sermon by the Rev. H. D. C. MacLachlan, D. D., of Seventh Street Christian Church. For the first time in the history of the school, nurses of Memorial Hospital were graduated at the same exercises with the students in the medical, dental and pharmacal departments. There were about 90 graduates in all four departments. In keeping with war times, no banquets were served.

The Board of Visitors of the College, at its annual meeting on the 3rd, decided that, beginning with the coming session, women will be admitted to the medical, dental and pharmacal classes of the College, certainly for the period of the war and most probably longer. This course was decided upon, it is stated, as a war measure, that graduates in these departments may supply some of the vacancies in the professions which will be occasioned by the calling to colors of the men.

There was no meeting of the Alumni Society at this time, but there will be an adjourned meeting later on.

Commencement exercises were held in the City Auditorium on the evening of the 4th. Major Stuart McGuire, Dean of the Faculty and Director of Base Hospital No. 45, and several members of the Faculty who are in the service, appeared in uniform and occupied seats on the stage. Rev. Russell Bowie, D. D., chaplain of the unit, opened the exercises with prayer and Dr. McGuire made his report of the year's work. The address of the evening was given by Col. Victor C. Vaughan, M. C., N. A., Dean of the Department of Medicine and Surgery of the University of Michigan. Mr. J. R. McCauley, secretary-treasurer of the College, read the hospital appointments and announced the following names of medical graduates who have enlisted in the naval service as assistant surgeons with the rank of lieutenant of the junior grade: Drs. E. W. Buckingham, Jr., Lynchburg; Jas. D. Clements, Gloucester; A. L. Denton, Middlesex, N. C.; Walter L. Drewry, Wakefield; G. B. Dudley, Jr., Martinsville; Roger H. DuBose, Darlington, S. C.; Francis P. Gardner, Covington; Alfred Grussner, Brooklyn, N. Y.; Martin A. Hatcher, Rosehill, N. C.; John A. Hawkins, Jr., Danville; J. P. Henderson, Mayesville, N. C.; Gleaves B. Kenny, Ethelfelts; Spurgeon B. Moore, Globe, N. C.; H. R. Phinney, Jr., Richmond; Wm. A. Simpson, Richmond; Geo. H. Snead, Fork Union; C. Lester Wood, Stamford, Conn.

The following have volunteered but have not yet received their commissions: Drs. I. T. Peters, Camp Creek, W. Va.; Henry H. Wescott, Painter; Jas. F. Terrell, Ashland.

Hospital appointments are as follows:

Memorial Hospital, Richmond—Drs. G. B. Kenny, Ethelfelts, and J. R. Shultz, Wheeling, W. Va.

Johnston-Willis Sanatorium, Richmond—Drs. Willie Meyer, Enfield, N. C.; I. T. Peters, Camp Creep, W. Va., and Wallace Spiegal, Norfolk.

Tucker Sanatorium, Richmond—Dr. L. Beverley Chaney, Roanoke.

Virginia Hospital, Richmond—Drs. Clarence E. Brown, Rockwell, N. C., and W. A. O'Brien, Jr., Leaksville, N. C.

Retreat for the Sick, Richmond—Undergraduates, Thurston Formy-Duval and B. O. Bell.

City Jail Hospital, Richmond—Undergraduate, Peyton S. Lewis.

N. Y. Neurological Institute, New York City—Dr. Albert B. Siewers, Richmond.

Gouverneur Hospital, New York City—Dr. Wilbur R. Bracey, Richmond.

James Walker Memorial Hospital, Wilmington, N. C.—Dr. Claude H. Fryar, Delway, N. C.

St. Vincent's Hospital, Norfolk—Dr. John D. Crenshaw, Cambria.

Oglethorpe Sanitorium, Savannah, Ga.—Dr. Gilbert W. Rolston, Mt. Clinton.

Highsmith Hospital, Fayetteville, N. C.—Dr. Oscar L. Parker, Clinton, N. C.

Miami Valley Hospital, Dayton, O.—Dr. Lawrence P. Fox, McConnellsville, O.

McLeod Infirmary, Florence, S. C.—Dr. Chas. S. McCants, Winnsboro, S. C.

Virginia's Medical Honor Roll.

Appeals are still being made for doctors for the Medical Reserve Corps. Information as to requirements will be gladly furnished by the President of the Medical Examining Boards in this State, Maj. Robert C. Bryan,

M. R. C., Grace Hospital, Richmond, or by chairmen of the Boards at Ft. Monroe, Norfolk or Roanoke.

Virginia is still far down the list in the percentage of doctors furnished in proportion to her medical population. According to the *Journal of the American Medical Association* of June 1, 1918, Arizona has furnished 23 per cent., or the largest number of doctors of any of the States in proportion to her medical population, for the Medical Reserve Corps, and Arkansas the smallest, or 7.8 per cent. Virginia has furnished 15.7 per cent. There are 2,509 doctors in Virginia, 1,411 of whom are under 45 years of age and 1,551 under 55 years, up to which age doctors are asked to volunteer for the service. Virginia has furnished a little over 25 per cent of those eligible by virture of age, but there are of course, some of the above number exempt because of physical disability.

We append below, *Virginia's Medical Honor Roll* as taken from the above named issue of the *Journal of the A. M. A.*

ACCOMAC COUNTY: **Chincoteague**—Clay Miller Easter. **Greenbackville**—Herbert Clifford Mallory. **New Church**—Charles Edward Critcher. **Onancock**—James C. Doughty. **Parksley**—Ira Hurst. **Tangier**—Grover Baehe Gill.

ALBEMARLE COUNTY: **Charlottesville**—Bernard L. Jarman, Hugh T. Nelson, Jr., Chas. Colville Tennant. **Covesville**—Francis Page Nelson. **Greenwood**—William Wilson. **Red Hill**—Richard D. Anderson. **University**—William Hall Goodwin, Minor Carson Lile, Rockwell Emerson Smith, Dan Hiter Witt, Hunter Saml. Woodbery.

ALEXANDRIA COUNTY: **Alexandria**—Samuel Broders Moore; Llewellyn Powell. **Ballston**—Williamson Crothers Welburn. **Cherrydale**—James Howard Walton. **Ft. Meyer**—Julian M. Cabell. **Lincolnia**—Thomas Franklin Dodd.

ALLEGHANY COUNTY: **Clifton Forge**—Claude N. Rucker, James Neal Williams, Frank Laird Wysor. **Iron Gate**—Achilles Douglas Tyree.

AMELIA COUNTY: **Amelia**—Wm. Reid Putney. **Amon**—James Loving Hammer. **Jetersville**—Robert John Styers. **Mattoax**—Leslie Clyde Burton.

AMHERST COUNTY: **Amherst**—Basil Ellis Strode. **New Glasgow**—Waverly Stafford Tucker.

AUGUSTA COUNTY: **Fishersville**—Harry F. White. **Mt. Solon**—Jas. Wright Clarkson. **Staunton.** Richard P. Bell, James Lemuel Martin, Wilbur Moorehead Phelps, Alexander F. Robertson, Jr. **Stuarts Draft**—Isaac Roy Wagner. **Waynesboro**—Harvey R. Livesay, Wm. Patterson.

BATH COUNTY: **Warm Springs**—Thos H. Massey.

BEDFORD COUNTY: **Bedford**—Wm. Isam Laughon, Geo. L. A. Pogue. **Holcombs Rock**—Jas. Addison Meriwether.

BRUNSWICK COUNTY: **Barrows Store**—Bernard Barrow.

BUCKINGHAM COUNTY: **Dillwyn**—Chas. A. Brown.

CAMPBELL COUNTY: **Altavista**—John Arnold Board. **Lynchburg**—John Wesley Carroll, John W. Davis, Thomas Newman Davis, Arthur Hamilton Deekens, Bernard Hewett Kyle, Jos. James Ligon, Wm. Henry Roberts (colored), Simon Harry Rosenthal, James Joseph Ligon.

CAROLINE COUNTY: **New London**—John Randolph Travis.

CHARLOTTE COUNTY: **Phenix**—Ray Atkinson Moore.

CHESTERFIELD COUNTY: **Bon Air**—Barton Bates McCluer. **Midlothian**—John Lloyd Tabb.

CLARKE COUNTY: **Gaylord**—Lewis M. Allen. **Millwood**—McClure Scott.

CRAIG COUNTY: **New Castle**—Bernie R. Caldwell.

CULPEPER COUNTY: **Raccoon Ford**—Jas. Oscar Mundy, Jr.

CUMBERLAND COUNTY: **Cumberland**—Wm. L. Varn.

DINWIDDIE COUNTY: **McKenney**—Edgar Williams Young. **Petersburg**—Chas. Royal Alexander, John Rochester Booth, Walter M. Brunet, H. Aulick Burke, John Bernard Halligan, Douglas Beverly Johnson, Wm. Baird McIlwaine, Mason Romaine, Jas. Thos. Shelburne, Wm. Amos Trevette.

ELIZABETH CITY COUNTY: **Hampton**—Joseph Wilton Hope, Harry Dresser Howe, William Edward Knewstep, Paul Jones Parker, Jas. Otho Parramore, Marshall Wray Sinclair, Edward Neth Schillinger, Thomas M. Wood. **National Soldiers Home**—Frederick Elmer Jenkins. **Phoebus**—Ruppert A. B. Lloyd.

FAIRFAX COUNTY: **Fairfax**—Howard Fletcher. **Falls Church**—James McNelledge Fadeley, Tunis C. Quick. **Ft. Hunt**—Edwin W. Patterson. **Vienna**—Arthur G. Coumbe, Stewart Maxwell Grayson.

FAUQUIER COUNTY: **Markham**—Philander Chase Riley. **Morrisville**—Wm. Dehart Fitzhugh. **Paris**—Edgar Ackley Moore. **Rectertown**—Edgar Bentley Noland. **The Plains**—Robert B. Shackleford. **Warrenton**—Walter Gordon Trow.

FLUVANNA COUNTY: **Columbia**—John James Nelson. **Kent's Store**—Booker Lee.

FRANKLIN COUNTY: **Taylors Store**—Louis C. S. Haynes. **Union Hall**—Frederick Pelham Sutherland.

FREDERICK COUNTY: **Clear Brook**—Chauncey Elmo Dovell. **Gore**—Charles Agustus Young. **Winchester**—Walter Cox; Jerome Thurston Quirk.

GLOUCESTER COUNTY: **Bena**—Merritt W. Healy. **Gloucester**—Landon Elwood Stubbs. **Ware Neck**—Thomas Rollins Marshall.

GRAYSON COUNTY: **Independence**—Wayne McLean Phipps. **Galax**—Whitfield Painter Davis.

GREENVILLE COUNTY: **North Emporia**—Hugh Benjamin Mahood.

HALIFAX COUNTY: **South Boston**—John Jennette Neal.

HANOVER COUNTY: **Ashland**—Allen J. Chenery, Edward Le Baron Goodwin.

HENRICO COUNTY: **Glen Allen**—Alexander McLeod. **Richmond**—Edward Turner Ames, Meriwether L. Anderson, Paul V. Anderson, George E. Barksdale, Quintus Harper Barney, Archie A. Barron, Greer Baughman, Oliver Francis Blankingship, Wyndham Bolling Blanton, James Gordon Boisseau, Marshall L. Boyle, Jr., Oliver C. Brunk, Robert Coalter Bryan, Calvin Childress, John A. Cloyd, Milton Buell Coffman, Giles B. Cook, Cornelius Byrd Courtney, Baxter Lindsay Crawford, Beverly Fitzwilson Eckles, John M. Emmett, Gerald A. Ezekiel, John Blair Fitts, Edward L. Flanagan, Frederick Peter Fletcher, Roy Clyde Fravel, Joseph Francis Geisinger, William

Wallace Gill, W. Armistead Gills, John Stewart Gilman, Isaac Harry Goldman, Charles F. Graham, Kenneth Dawson Graves, Alfred Leftwich Gray, Harrison Llewellyn Harris, Horace Taylor Hawkins, Henry Jackson Hayes, Alvah Livingston Herring, Blanton Hillsman, Frederick Murchison Hodges, Raymond Cottrell Hooker, Erasmus Guy Hopkins, William Benjamin Hopkins, Julius J. Hulcher, Jas. Morrison Hutcheson, Charles Howard Lewis, Frank William Hicks Logan, John Willis Martin, Jos. Levering McCabe, John McGuire, Stuart McGuire, Joseph Thompson McKinney, Chas. Wilbur Mercer, Waller Nelson Mercer, John Garnett Nelson, John O'Brien, Jr., Thomas Helm Odeneal, William Lowndes Peple, Charles Phillips, William Branch Porter, Robert Sheffey Preston, Frank Harrell Redwood, William A. Reese, Charles Louis Rudasill, Turner Southall Shelton, Walter D. Simmons, Jr., Fayette Allen Sinclair, James Henderson Smith, Lewis B. Staton, Henry S. Stern, Bronson E. Summers, Roscoe Franklin Thornhill, Robert Edward Timberlake, Albert Pierce Traynham, Dorsey Goodwin Tyler, Francis W. Upshur, Junius Ernest Warinner, Jr., Francis K. T. Warrick, Talmadge Weatherly, William Robert Weisiger, Beverly Randolph Wellford, Geo. Washington White, Lawther Jackson Whitehead, Robert Graham Wiatt, Leslie B. Wiggs, Carrington Williams, Wm. Franklin Williamson, Robert Grant Willis, Robert Herbert Wright. **Rio Vista**—Patrick Michael Carroll.

HENRY COUNTY: Martinsville—Dana Olden Baldwin.

HIGHLAND COUNTY: Crabbottom—John Franklin Stover.

ISLE OF WIGHT COUNTY: Smithfield—Samuel Abram Riddick.

KING GEORGE COUNTY: Ferrell—Veola O. Caruthers, Jr.

LANCASTER COUNTY: Kilmarnock—Morgan E. Norris.

LOUDOUN COUNTY: Ashburn—George Annistead Noland. **Lovettsville**—Carroll Edward Foley. **Purcellville**—Ralph Mortimer Thompson. **Waterford**—Leslie T. Rumiselle.

LUNENBURG COUNTY: Dundas—Robert Lucas Ozlin.

MADISON COUNTY: Uno—Early B. Dovell.

MATHEWS COUNTY: Cardinal—Eric Theophile Sandberg.

MECKLENBURG COUNTY: Chase City—Edward Ballard Broocks, Adam T. Finch.

MIDDLESEX COUNTY: Harmony Village—James Allen Bennett. **Lot**—Benjamin Blanton Dutton.

MONTGOMERY COUNTY: Cambria—Ollie Allison Ryder. **East Radford**—Jacob C. Bowman. **Radford**—Wm. O. Poindexter.

NANSEMOND COUNTY: Suffolk—Wm. Theodore Gay.

NELSON COUNTY: Avon—James Filmer Hubbard.

NEW KENT COUNTY: New Kent—John Bolling Vaiden.

NORFOLK COUNTY: Berkley—George B. West. **Norfolk**—James W. Anderson, Wm. E. Bailey, Henry Colmore Bradford, Israel Brown, Samuel Elkan Brown, Rhodric W. Browne, George B. Byrd, Clarence Wills Cowper, John Daugherty, Charles Joseph Devine, Stephen Roszel Donohoe, Jr., Herbert R. Drewry, Wilson Elliott Driver, Garland E. Faulkner, Marion S. Fitchett, Lomax Gwathmey, Frank H. Hancock, Charles Hatcher, Joseph Stewart Hume, Claude Dalby Kellam, Beverly Randolph Kennon, Burnley Lankford, John Marion Love, Junius F. Lynch, Robt. Holman Noell, Andrew Lyman Paey, George Alley Renn, Nathaniel F. Rodman, Harry Ralph Seelinger, Charles C. Smith, Herbert Drew Snyder, Robert S. Spilman, Daniel Trigg, John Quincy Adams Webb, Robert Edward Whitehead, Claiborne Willcox, Readding Lloyd Williams, Thomas V. Williamson. **Portsmouth**—Sherwood Dix, Joe Clinton Dunford, Gray G. Holladay, William Karp, Samuel Poindexter Oast, Jr., Wilson Pendleton, Lonsdal Joseph Roper.

NORTHAMPTON COUNTY: Eastville—William Bell Trower.

NORTHUMBERLAND COUNTY: Wicomico Church—Samuel Downing.

NOTTOWAY COUNTY: Blackstone—Arthur Hooks. **Burkeville**—Robert Emmett Jones, Jr.

ORANGE COUNTY: Orange—Isaiah Allan Jackson, Frank G. Scott, Jr.

PITTSYLVANIA COUNTY: Danville—Henry A. Brady, Samuel Tilden Elliott, Wm. B. Fowlkes, Edward Howe Miller, Jr., Albert Lincoln Winslow. **Museville**—Oscar E. Hedrick. **Sutherlin**—Clyde Lester Bailey.

POWHATAN COUNTY: Ballsville—Roscoe C. Carnal. **Tobaccoville**—Otis Hillsman Whitlock.

PRINCE EDWARD COUNTY: Farmville—Charles Bledsoe Crute, Thomas Griffin Hardy.

PRINCE GEORGE COUNTY: City Point—Maurice Arthur Selinger, Hubert Lee Wyatt. **Hopewell**—James Spencer Burger, Jeffrey Neese Elder, Robert Julius Evans, Jr., Frank Levinson, Joash Yohannan, Roscoe W. H. Buckner, Seth Bridgeman Perry.

PRINCE WILLIAM COUNTY: Haymarket—Wade Cleveland Payne. **Manassas**—William Fewell Merchant, Walter A. Newman, John Downing Williams. **Quantico**—Charles L. Fackler, Edgar D. Smith.

PULASKI COUNTY: Draper—Edgar Clay Harper. **Pulaski**—Charles Ewing Dyer, William A. Lucas, James Walker Tipton. **Snowville**—Forrest T. Summers.

RICHMOND COUNTY: Newland—John Hampton Hare.

ROANOKE COUNTY: Airpoint—Charles Edward Sears. **Catawba Sanatorium**—Dean Baldwin Cole. **Hollins**—Allen Jackson Black. **Roanoke**—John Otto Boyd, Samuel Beverly Cary, Paul Davis, Douglas Shelburne Divers, Lylburn Clinton Downing, Frank Albert Farmer, Everett Russell Ferguson, Clifford Algernon Folks, Hugh Johnson Hagan, Elijah Maxie Hicks, Jr., George Samuel Hurt, Alfred Power Jones, William Shirey Keister, James Warren Knepp, George Madison Maxwell, Ernest Helm Muse, William Leven Powell, Lewis Geo. Richards, James H. Roberts, Richard Gordon Simmons, Hugh H. Trout, Carl Otto Wolff. **Salem**—Guy B. Denit.

ROCKBRIDGE COUNTY: Lexington—John William Hobbs Pollard, Reid White.

ROCKINGHAM COUNTY: Dayton—George Frank Hollar. **Elkton**—Ernest Brubaker Miller. **Harrisonburg**—Thomas Clinton Firebaugh.

RUSSELL COUNTY: Cleveland—James Menifee Talbee. **Clinchfield**—Samuel Benjamin Nickels. **Dante**—Rolan Eldridge Stump Taylor. **Lebanon**—Samuel Merriman Ford.

SCOTT COUNTY: Clinch—A. Null Osborne. **Clinchport**—Eugene Patrick Cox, Charles Radford Fugate. **Gate City**—Edwin M. Corns.

SHENANDOAH COUNTY: Forestville—Allen Casper Biller. **Woodstock**—Carl William Shaffer.

SMYTH COUNTY: Chatham Hill—David Jackson Buchanan. **Chilhowie**—Ezra Eugene Neff. **Marion**—Ray Carrington Blankenship, Francis Beattie Hutton, Jr.

SOUTHAMPTON COUNTY: **Boykins**—George Harrison Musgrave.

SPOTSYLVANIA COUNTY: **Fredericksburg**—Joseph Nicholson Barney, Urban F. Bass, Frank Cushing Pratt. **Spotsylvania**—William A. Harris.

SURRY COUNTY: **Claremont**—George Washington Lacey.

SUSSEX COUNTY: **Stony Creek**—Andrew Daniel Parson. **Waverly**—Hartwell Graham Stoneham.

TAZEWELL COUNTY: **North Tazewell**—Jack Walter Witten. **Pocahontas**—David Alexander Haller; Martin Luther Sowers. **Pounding Mill**—George Luther Zimmerman. **Raven**—Merwin B. Moore. **Richlands**—John Marvin Ratliff. **Shawver Mill**—James Thornton Neel.

WARREN COUNTY: **Browntown**—Charles Franklin Updike. **Front Royal**—Robert P. Cooke, William Justin Olds.

WARWICK COUNTY: **Newport News**—Otis Taylor Amory, Walter Cleveland Caudill, Robert Allen Davis, Thomas J. Kagey, Royall Howard McCutcheon, Robert Whitehead, Frank Delaplaine Willis.

WASHINGTON COUNTY: **Abingdon**—David Leighton Kinsolving, George Victor Litchfield, Jr., William Wallace McChesney, James Coleman Motley. **Bristol**—Nicholas Ivan Ardan, Hamil Smyth Scott, William S. Wiley. **Lodi**—William Hervey Remine.

WESTMORELAND COUNTY: **Colonial Beach**—Wm. Landon Brent, George Blight Harrison. **Hague**—Richard T. Arnest.

WISE COUNTY: **Appalachia**—William Byrdwill Peters, Jr., Harry Richard Smith. **Coeburn**—Isaac E. Wolfe. **Glamorgan**—John Thomas Ramsey. **Norton**—Alonzo Walter Saunders. **Roda**—John Adolph Rollings. **Stonega**—George Garland Rhudy. **Toms Creek**—Charles Clay Carr.

WYTHE COUNTY: **Max Meadows**—Lewis Sidney Herndon. **Rural Retreat**—Alfred Bryson Greiner. **Wytheville**—Edward Percy Odend'hal.

YORK COUNTY: **Grafton**—Stanhope B. Berkley.

The Man Power Bill.

Mr. Miller, of Washington State, has introduced in the House of Representatives, a bill which should have the support of the medical profession of the entire country. The purpose of the bill is "to conserve and increase the industrial man power of the United States" and "to increase the efficiency of the military and naval forces thereof." To accomplish this, he has suggested enlarging the powers of the Public Health Service " by creating and establishing a Division of Venereal Diseases therein: providing for the punishment of immoral persons afflicted with venereal disease who go or attempt to go from one political division to another, and persons who assist or connive at the same: establishing internment hospitals; authorizing the Secretary of the Treasury to establish all needful rules and regulations relating to the subject matter of this Act: and authorizing an appropriation therefor."

Various States have done and are continuing to do what they can to exterminate venereal diseases, and the establishment of extra-cantonment zone clinics in many places is another step in this direction. The necessity for the passage of some such bill as the one suggested by Mr. Miller is apparent when we note reports from camps all over the country. Venereal diseases lead over all other complaints which render soldiers ineffective in America. The national army, composed of the men being drafted from civil life, shows the greatest incidence of venereal diseases among the soldiers, and the regular army, the least. Figures for the national guard are much smaller than those for the national army. Surely the current should be stemmed at its source.

Norfolk County Medical Society.

With the annual election of officers the first of this month, this Society began what members agree should be one of the most active and important years in its history. Norfolk physicians are heartily co-operating with army and navy medical officers to maintain the health of the city and prevent any epidemic of disease such as usually follows a large influx of population. One problem will be to provide adequate hospital facilities, as all hospitals in Norfolk and all army and navy hospitals are at this time practically taxed to capacity.

Officers elected for the ensuing year are: President, Dr. Powhatan S. Schenck; vice-president, Dr. Southgate Leigh; and secretary-treasurer, Dr. Dandridge P. West, all of Norfolk city.

Dr. Alexis Carrel,

Of the Rockefeller Institute, New York, has been promoted by the French Government to the rank of commander of the Legion of Honor, for his medical services during the war.

Emergency Hospital at Newport News.

Bids were submitted in May to the Bureau of Yards and Docks of the Navy Department, for the construction of a $500,000 emergency hospital at Newport News, Va., the work on which is to begin at once.

Dr. and Mrs. L. H. Lewis,

Of Elkton, Va., were visitors at the home of Dr. Lewis' brother, in Clifton Forge, Va., last month.

Dr. R. L. Hudgins,

Of Farmville, Va., was a visitor in Chase City, Va., in May.

Large Number of Hospital Beds Provided.

One hundred thousand hospital beds will be available for American soldiers when the construction program now in progress under the supervision of the Army Medical Corps is completed. Late reports show that about 63,000 beds are now ready in National Army and National Guard base hospitals, embarkation, military and civilian hospitals included in the institutions in charge of the corps.

Visiting Staff at Virginia Hospital.

Upon nomination of the Executive Committee of the Medical College of Virginia, the Administrative Board has appointed the following to serve as physicians on the visiting staff of Virginia Hospital, this city: Drs. Robert C. Bryan, Douglas Vander Hoof, Manfred Call, A. M. Willis, J. W. Henson, A. G. Brown, Jr., and Joseph Bear. Drs. Stuart Michaux and B. H. Gray will also serve during the absence from the city of Drs. W. Lowndes Peple and Greer Baughman.

Dr. and Mrs. Hugh J. Hagan,

Formerly of Roanoke, Va., and their small son, are now at Vail, N. J., where Capt. Hagan is stationed at Camp Alfred as post surgeon.

Capt. Wyndham Blanton, M. C., U. S. A.,

Of Camp Custer, and his wife, have been on a recent visit to Capt. Blanton's parents, Dr. and Mrs. C. A. Blanton, of this city.

Free Inoculation Against Typhoid.

Although the vaccine may be obtained of druggists and administered by family physicians, this city, as well as a number of other places, will supply typhoid vaccine free upon application, and also has doctors on hand at certain hours each day to administer the vaccine when desired.

Dr. James R. Sterrett,

West Durham, N. C., was called to Louisa, Va., last month, on account of the illness of his sister, who is now much improved.

Green Band for Whooping Cough.

The Health Department has authorized the wearing of green arm-bands by children with whooping cough, with a view to preventing the spread of the disease. This ruling was made with a view to permitting children with the disease to get the fresh air. Although our City Health Department has never placarded houses for whooping cough, rigid quarantine will now be instituted in cases of refusal to use the green ribbons. Forty-four babies died in Richmond last year from this one disease, and forty-six the previous year. It is hoped enforcement of this "green ribbon" law will reduce the city's death rate for whooping cough.

Morehead City, N. C., to Have Hospital.

The contract for the immediate erection of the Morehead City General Hospital was let in May, and it is expected that the hospital will be completed and ready for occupancy by early fall. The building is to be 90x100 feet, and will cost $30,000 without equipment.

Dr. Henry A. Christian,

A native of Lynchburg, this State, but now of Boston, was recently elected president of the American Society for Clinical Investigation, at its convention in Atlantic City.

Dr. and Mrs. W. W. Vest,

Of Clarksville, Va., were called to Mt. Regis Sanatorium, Salem, Va., in May, by the illness of a member of their family.

Married—

Dr. Rees Bowen Gillespie, Tazewell, Va., and Miss Charlotte Landon Henry, Roanoke, Va., May 24. They will make their home at Jewell Ridge, Va.

Lt. Hunter McGuire Doles, M. O. R. C., son of Dr. J. T. Doles, of Ivor, Va., and Miss Morton Wortham, Norfolk, Va., May 8. Dr. Doles is at present stationed at Ft. Oglethorpe, Ga.

Dr. Casper Walker Jennings, Greensboro, N. C., and Miss Marjorie Lea, Richmond, May 25.

Dr. Eugene R. Hardin and Miss Ruby Goode, both of Clinton, N. C., May 14. Dr. Hardin, who is now a lieutenant in the medical reserve corps of the Army, was for several years prior to his entering the service, health officer of Sampson County, North Carolina.

Dr. Maury B. Linkous, Cambria, Va., and Miss Virginia Kirk, of Oklahoma, in Blacksburg, Va., June 2.

Hook Worm in Camp.

It is stated by army surgeons that twenty per cent. of the drafted men received at Camp Sevier, Greenville, S. C., are affected with hook worm. Numerous cases are being treated and all show improvement. In some companies, as many as sixty men are being treated.

War-Time Social Work.

To enable women who want to help win the war to qualify themselves in the briefest period of time for this war service at home, the Department of Civilian Relief of the Red Cross and the School of Social Work and Public Health, in Richmond, have organized a summer course of six weeks in Emergency Social Service, to begin June 24. New problems have arisen as a result of the war and some of the old problems have become more serious. Courses will be offered in this summer course in: (1) Red Cross Home Service; (2) Juvenile Delinquency in war time; (3) Protective work for girls; (4) Social Service in war time, and (5) Technique of social case work.

Full information will be sent upon request of the director, Dr. H. H. Hibbs, Jr., 1112 Capitol Street, Richmond.

The Southwest Virginia Medical Society

Will hold its regular meeting in Roanoke, June 26 and 27. An interesting scientific program has been prepared and several matters of especial interest will be discussed, including the subject of consolidation of County Societies with the Southwest Society, according to permission granted by the State Society. This is also the meeting for the election of officers. Dr. W. R. Cushing, Dublin, is president, and Dr. S. W. Dickinson, Marion, secretary.

The Piedmont Sanatorium,

Near Burkeville, Va., for colored tuberculous patients, was opened less than two months ago with a capacity of forty beds. The first of this month there were twenty-six patients already at the Sanatorium, eight more had been called in, and four beds were reserved for incipient cases, which were to enter during June. It is expected that a second pavilion, with a capacity of forty additional beds, will be opened by July 15. At least six of the patients at the Sanatorium are having their expenses paid out of the Red Cross Seal fund, raised by the annual sale of stamps.

Smallpox In Several Sections Of State.

The fact that smallpox has been reported from several sections of the State recently, would seem to indicate that many people are still careless regarding vaccination and revaccination. The present disease does not seem to be epidemic and is mild in character, but every case shows a criminal carelessness, since vaccination gives immunity. A word from the doctors to their patients might prove of value to health conditions.

Dr. John A. Davis,

Of Bedford City, Va., is now located at Mammoth, W. Va., to practice.

The Southside Virginia Medical Association,

Of which Dr. P. A. Irving, Farmville, is president, and Dr. R. L. Raiford, Sedley, secretary-treasurer, is to hold its regular quarterly meeting in Suffolk, Tuesday, June 18.

Dr. Cornelius B. Courtney,

Who has been connected with the Virginia State Board of Health for the past two years, but who was commissioned first lieutenant in the medical reserve corps last February, was ordered to New York the latter part of May, for a special course in laboratory work at the Rockefeller Institute.

Dr. W. A. Brumfield,

Assistant Commissioner of Health of Virginia, has been appointed an assistant surgeon in the U. S. Public Health Service. His work will have to do with one of the big health problems brought to the fore by the war—the control of venereal diseases in Virginia. He will continue to have headquarters in this city, but will work in active co-operation with health authorities of the State along the special line of his new service.

Dr. Brumfield is the tenth physician taken from the health department by the war, and his will make the twenty-fifth star on the service flag of the State Health Department.

Dr. E. Trible Gatewood,

Of New York, was a recent visitor in this city. Dr. Gatewood has just completed a two and a half year internship in the Eye, Ear, Nose and Throat Department of the New York Post-Graduate Hospital. He was formerly located at Toano, Va.

Building At S. C. State Hospital Destroyed.

Sixteen male patients at the State Hospital for Insane, Columbia, S. C., perished in a fire which destroyed a one-story frame structure on the hospital grounds early on the morning of May 29. All patients in the ward, forty-five in number, were taken out safely, but those lost rushed back in the building despite the efforts of the nurses and attendants.

Dr. and Mrs. B. Roscoe Gary,

Of Newport News, Va., attended the finals of Westhampton College, this city, the latter part of May, to be present on the occasion of the graduation of their daughter.

Dr. Robert C. Bryan,

Of this city, gave an address at Fork Union, Va., the latter part of May, in behalf of the Red Cross.

Department Store Building For Hospital.

Medical Record states that Government representatives have inspected the store building formerly occupied by Siegel-Cooper Company and later by the Greenhut Company on Sixth Avenue, between 18th and 19th Streets, New York, with a view to fitting it up as a base hospital for invalid soldiers. It can be made to accommodate 3000 soldiers.

Many Wounded Americans Will Recover.

In the opinion of American Army surgeons, ninety out of every hundred American soldiers wounded in the Catigny battle will recover. The wounded were brought from the fighting line without delay when the battle was at its worst.

Sick and wounded soldiers of the American expeditionary forces are beginning to be returned to this country to be cared for in various army hospitals. For the week ending May 24, sixteen arrived, and for the week ending May 31, one hundred and eighty-four sick and wounded were landed in this country.

Dietary To Meet War Conditions For Hospitals For Insane.

Dr. H. J. Sommer, Superintendent of the Blair County Hospital for Insane at Hollidaysburg, Pa., and his assistant, Dr. P. Saha, have sent out a brochure telling how they are conserving in the food needed for our soldiers and allies, by substituting more of the foods that cannot be shipped or are not so much needed abroad. This was done voluntarily as hospitals were exempt from the rulings promulgated by the food administration. About 300 persons are fed each day at this hospital. With the re-arrangement of menus, it is estimated that 90 barrels of wheat flour per year are saved for the food administration. The menus as given are varied and attractive and have been worked out according to their caloric value. It is stated that none of the patients are under-fed—rather they are over-fed. We feel sure that Dr. Sommer would be glad to communicate with any hospitals interested in his work.

Dr. and Mrs. E. C. Fisher

Have returned to their home in this city, after spending sometime in New York and Atlantic City.

Dr. Clifton M. Miller,

Of this city, was elected one of the vice-presidents of the American Laryngological, Rhinological and Otological Society, at its meeting in Atlantic City, the last day of May. This election also makes him chairman of the Southern section of the Society.

N. C. State Health Officers' Association.

Dr. J. R. McCracken, Waynesville, and Dr. George M. Cooper, Raleigh, were elected president and secretary respectively of the above Association at its recent meeting in Pinehurst.

Dr. Lewis E. Harvie,

A widely known doctor of this State, has been critically ill with heart trouble at his home in Danville, for several weeks.

Screening Urged By Health Authorities.

The State Health Department is again urging not only the adoption of adequate measures for the sanitary disposition of waste matter about homes, but also the effective screening of the home to lessen the incidence of insect-borne diseases.

Dr. Charles L. Summers,

Until recently of Winston-Salem, N. C., has been elected Professor of Clinical Pediatrics at the University of Maryland, School of Medicine, Baltimore.

Dr. Algernon Coolidge

Has been made acting dean of the Harvard Graduate School of Medicine, to succeed Dr. A. S. Begg, who is in army service.

Dr. G. A. Wright,

Chilhowie, Va., has sold his property and location to a Dr. Jones, of North Carolina, and will move to Marion, Va., as an assistant physician at Southwestern State Hospital.

Dr. William Karp,

Formerly of Portsmouth, Va., but recently of this city, has received a commission as first lieutenant in the Medical Reserve Corps, and been sent to Camp Meade, near Baltimore.

Major Herbert C. Mallory,

Formerly of Greenbackville, Va., post surgeon and ranking medical officer at Park Field, near Memphis, Tenn., since its establishment, has been transferred to Mineola, L. I., for special work in the research laboratories. At the outbreak of the war, Maj. Mallory was assigned to duty at Park Field to superintend the sanitary arrangements, and was promoted from the rank of lieutenant to that of major during his service at this post.

Medical Lectures At Summer Normals.

The State Department of Health has arranged to have medical instruction given at each of the twenty State summer normal schools this year, by qualified lecturers, who will give special attention to preventive medicine and medical inspection of school children. Dr. R. W. Garnett, of the staff of the Department, will participate in this branch of the work. Dr. Paul B. Barringer, of Charlottesville, and Dr. Mary Evelyn Brydon, of Farmville, have tendered their services and have been assigned to normals. Other appointments will be made later. This course is to be given with the idea of impressing upon teachers in attendance the value and need of disease prevention and the building up of a strong public sentiment in every community for the eradication of the sources and causes of disease.

Dr. William D. Scott, Jr.,

Of Curtis Bay, Baltimore, Md., a native of Fredericksburg, Va., has been appointed captain in the medical reserve corps, U. S. A., and ordered to duty the latter part of May.

Dr. John Beverley Pollard, U. S. N.,

Accompanied by his wife and little daughter, have been visiting at the home of Mrs. Pollard's mother, near Annapolis, Md.

Wanted—Young physician, honest, industrious and well-bred, to act as assistant to middle aged general practitioner in a Southern California coast town, where the climate is delightful the year round, the people cultivated and prospects for advancement excellent. Address No. 1, care this journal, stating age, weight, college and year of graduation, experience, if any, and salary expected.—(Adv.)

Obituary Record.

Dr. John Henry Hinchman,

A prominent and well known physician of this city, died at his home May 31, 1918, aged about sixty-three years. He had been ill since early in April, suffering from a general breakdown due to overwork. To the time of his illness, Dr. Hinchman had served as medical examiner on a local draft board. He received his medical education at the Medical College of Virginia, from which he graduated in 1879. He was a member of the Medical Society of Virginia, the American Medical Association, and a number of fraternal and other societies. He is survived by his widow, a daughter and four sons. Two of his sons are already practising physicians and another is a student in medicine.

Dr. Alan B. Cleborne,

Past assistant surgeon of the U. S. Marine Hospital at Savannah, Ga., died suddenly May 13, while performing an operation. He was a native of Richmond, and was educated at the University of Virginia, from which he graduated in medicine in 1902.

Dr. Roger Martin,

Of Worsham, Va. died the early part of May from pneumonia, aged 56 years. He had been in bad health for about ten years. Dr. Martin studied medicine at the College of Physicians and Surgeons, Baltimore, from which he graduated in 1888. He was a member of the Medical Society of Virginia.